



7499 Pine Stake Road  
Culpeper, Virginia 22701

Telephone: (540) 854-2037  
Facsimile: (540) 854-2002

February 13, 2009

Federal Express

Mr. Kenneth J. Cox  
Land and Chemicals Division (3LC70)  
U.S. Environmental Protection Agency – Region III  
1650 Arch Street  
Philadelphia, PA 19103

RE: Response to Notice of Violation (NOV), Compliance Evaluation Inspection (CEI) of  
August 14, 2007; Aerojet Corporation, Orange County Facility, EPA ID No.  
VAD981112618; Docket No.: R3-09-NOV-RCRA-09

Dear Mr. Cox:

Introduction

Aerojet Corporation (Aerojet) submits the information below in response to the Environmental Protection Agency's (EPA's) NOV letter of January 5, 2009, re: Notice of Violation/Compliance Evaluation Inspection/August 14, 2007. *(See Attachment A for a copy of the EPA letter and inspection report; without attachments).* In that letter EPA requested a response regarding alleged violation #2, which is repeated in its entirety below:

The facility failed to date containers stored outside Building 26 (Photo #301) and Building 202 (Photos #324 thru #326) in violation of 9VAC 20-60-262 [40 CFR 262.34(a)(2)]. These areas are not satellite accumulation areas because their outdoor location does not qualify as "at or near the point of generation" as required by 9VAC 20-60-262 [40 CFR 262.34(c)(1)] and thereafter must be managed as 90 day areas.

Pursuant to our phone conversation of January 21, and as confirmed by our email exchange on that same date, EPA granted Aerojet an additional 20 days (for a total of 40 days) for submittal of our response.

As stated more fully below, Aerojet submits that the satellite accumulation areas (SAAs) in question, (see Photos #301 and #324) which are located outside the buildings for safety reasons, are "at or near the point of generation", and are in compliance with the requirements of 9VAC 20-60-262 [40 CFR 262.34(c)(1)]. We have provided below an explanation of the facts and circumstances supporting this position, including further justification on the outside location of the satellite areas. We also provide information and clarification regarding two outside storage areas at Building 202 that EPA identified by photograph (the first is shown in Photos #325 and #326, and the second in Photo #327), and a description of the measures we have taken with respect to those areas to avoid any further confusion during our daily operations, and to ensure compliance with all appropriate requirements. One of the areas in question was never intended

to be used for waste accumulation (the chemical storage cabinet shown in Photos #325 and #326), and the second was never intended to be a 90-day accumulation area (the “daily empty” energetic (D003) waste containers shown in Photo #327).

### Background Information

The Orange facility was designed and constructed in the late 1980s, and propellant manufacturing operations started in 1990. It was originally owned and operated by Atlantic Research Corporation (ARC), and was designed and operated similar to the ARC-Gainesville facility. Initially it supported the manufacturing and testing of only the D5 rocket motor program (a solid propellant based gas generator for the post boost control system of the Navy Trident Missile).

As explained to the EPA inspector during the inspection, and as noted in the inspection report (RCRA CEI Inspection, Background), Aerojet purchased some of the assets of ARC in late 2003, including the ARC-Orange, facility. Aerojet did not purchase ARC’s interest in the Gainesville facility and required ARC to move the operations performed in the Gainesville facility to other facilities, including to the Orange facility, before Aerojet began those operations.

At the Orange facility, Aerojet now conducts research, design, development, manufacturing, and testing (laboratory and static test firing) of solid propellants and related aerospace propulsion devices and systems, including rocket motors/missiles, gas generators, igniters, and warheads. There are three current propellant manufacturing programs, as well as significant R&D and testing activities related to development of new propellants and related products. The facility generates energetic hazardous wastes (waste code D003; e.g., scrap propellants or explosive ingredients) at various buildings. These energetic wastes are collected in marked containers at or near the point of generation, removed on a daily basis (at end-of-shift), taken to a 90-day accumulation area at Building 112 near the thermal treatment facility, and placed in labeled and dated containers. From there they are then removed within 90 days and treated/destroyed by open burning at our thermal treatment facility under a RCRA permit. Some energetic wastes contain RCRA metals as burn rate catalysts, and although also accumulated at the 90-day area at Building 112, these energetic wastes are then shipped offsite within 90 days for treatment/disposal because our current RCRA permit does not allow them to be treated onsite.

In the process of conducting the above operations, the facility also generates chemical wastes, often in the same buildings that house energetic operations, and primarily from laboratory and testing processes of explosive ingredients and/or propellants (i.e., Buildings 26 and 202). These chemical wastes are typically generated in much smaller quantities (take much longer than 90 days to accumulate a full drum), and are accumulated at the buildings in covered containment units managed as satellite areas. There is only one hazardous waste stream, one hazardous waste container, and no greater than 55 gallons of hazardous waste at each satellite accumulation area for chemical wastes (no acutely hazardous wastes). Once full, the containers are dated and transferred to our 90-day accumulation area for chemical (non-energetic) wastes at Building 24, and then shipped offsite within 90 days for treatment/disposal.

To the best of our knowledge, neither the regulations nor the preamble to the regulations expressly defines the terms “at or near the point of generation” or “under the control of the operator” with reference to the distance from the point of generation or the level of control required. By locating the SAAs immediately adjacent to the building, and just outside the door of the specific operation in the building that generated the waste, they were and are considered both at or near the point of generation, and under the control of the operator generating the waste, consistent with 9VAC 20-60-262 and 40 CFR 262.34(c)(1).

The Orange facility has undergone hazardous waste compliance evaluation inspections on an almost annual basis (approximately fifteen inspections during the past eighteen years), and, prior to the EPA inspection of August 14, 2007, the outside location of satellite accumulation areas (SAAs) has not been challenged or identified as an alleged violation. Moreover, this approach often was discussed with the inspectors. We perceived that the Virginia Department of Environmental Quality (VA-DEQ) (and previously the VA Department of Waste Management (VDWM)) viewed as acceptable and compliant at both the Gainesville and Orange facilities the location of the satellite accumulation points of chemical hazardous wastes immediately outside energetic buildings for safety reasons because of the nature of the energetic operations and presence of explosive materials inside the buildings. VA-DEQ in fact conducted an inspection in February 2007, only a few months prior to the inspection by EPA in August 2007, and this issue was not identified as a violation during that (or any previous) inspection.

#### Aerojet Response

Aerojet submits that it has operated its SAAs at the Orange facility in compliance with the requirements of both 9VAC 20-60-262 and 40 CFR 262.34(c)(1). (ARC held that same view prior to the asset sale to Aerojet.) We understand the Agency’s concerns, and provide the following information as justification for location of the SAAs for chemical wastes immediately outside of buildings with energetic operations, and for their consideration as being at or near the point of generation.

ARC consulted EPA’s Industry Assistance Group (EPA-IAG) in 1987 regarding outside waste accumulation at its Gainesville facility. EPA-IAG agreed that the storage sheds located outside of the buildings for accumulation of waste chemicals for safety reasons due to the explosive nature of the work conducted inside the buildings, but located as close as safety allowed, did fall under the definition of satellite accumulation of 40 CFR 262.34(c)(1). EPA-IAG referred the company to EPA’s Office of Solid Waste (EPA-OSW) for written confirmation of their interpretation. ARC wrote a letter to EPA-OSW on November 30, 1987 and requested a formal clarification. The Director of EPA-OSW replied by letter of January 13, 1988. EPA’s letter states as follows (*see Attachment B for copies of the letters from EPA-OSW and ARC*):

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The storage areas you describe appear to be satellite accumulation areas. A satellite accumulation area must be at or near any point of generation where wastes accumulate. The satellite accumulation area should also be under the control of the person operating the waste generation process, and the operation appears to meet these criteria.

If ARC accumulates no more than 55 gallons of hazardous waste or one quart of acutely hazardous wastes at each satellite area and follows the other requirements of 40 CFR 262.34(c), the areas would not be subject to permitting, interim status, or the requirements for generator storage at Section 262.34(a).

ARC was constructing the Orange facility (which Aerojet later bought) when this ruling was issued by EPA-OSW in 1988. Quite reasonably, ARC set up its hazardous waste accumulation areas at Orange, including satellite areas for accumulation of chemical wastes, the same way it had done at its facility in Gainesville. The types of buildings and operations, processes, and equipment at the Orange facility, including the types of wastes being generated, were essentially the same as those at the Gainesville facility. As noted above, both VDWM and subsequently VA-DEQ conducted compliance inspections at both facilities on an almost annual basis for eighteen years (both when ARC operated both facilities and when Aerojet operated the Orange facility), and appeared to accept the outside location of SAAs at both facilities as being as near the point of generation as safety allows, and under the control of the operator who is located just inside the building, thus being in compliance with both 9VAC 20-60-262 and 40 CFR 262.34(c)(1). Aerojet, upon acquiring the assets at Orange and upon the relocation of some of the operations/equipment/processes to Orange, continued the practice at Orange of setting up satellite areas for accumulation of chemical wastes outside of energetic buildings.

At Orange, Aerojet uses small (poly, two-drum, enclosed) containment units that meet EPA requirements for secondary containment (as shown in Photo # 324 in the EPA inspection report (*see Attachment C*)), so they can be located immediately adjacent to the building, and just outside the door leading from the room which houses the process generating the waste. The operator of that process routinely accesses the container in the outside containment unit several times on a daily basis to place waste inside, thereby maintaining control of the waste container, which is closed at all time except when adding waste.

#### Justification for Outside Location of Satellite Accumulation

Significant problems can arise when storing hazardous waste inside an energetic building. The types of hazardous chemical wastes generated at the Aerojet Orange County facility include but are not limited to mixed flammable solvent liquid wastes, mixed solvent contaminated rags/trash, and/or mixed acid wastes. A description of the energetic operations and related waste activities that take place in Building 26 (Photo #301) and Building 202 (Photo #324) is included in Attachment D.

In addition to federal, state, and local laws and regulations addressing both hazardous materials and waste management, as a Department of Defense (DOD) contractor, Aerojet is also required to comply with the DoD-Contractors' Safety Manual for Ammunition and Explosives. This Manual includes comprehensive safety requirements, guidance, and information to minimize potential accidents involving explosives that could endanger the public, cause injury to personnel, damage property, or to otherwise delay contract production.

Accordingly, the Aerojet Orange County facility follows the cardinal principle of explosives safety when dealing with explosives and other hazardous materials in buildings where explosive

operations are conducted. This principle requires Aerojet “limit exposure to a minimum number of personnel, for a minimum amount of time, to the minimum amount of hazardous material consistent with safe and efficient operations.”<sup>1</sup> DoD requirements mandate that we minimize or eliminate the storage of hazardous materials, including waste, inside buildings that involve explosive operations. DoD contractors can only “store *limited* quantities of hazardous materials ... which are essential for current operations in an operating building.”<sup>2</sup>

Storing any hazardous material, including hazardous waste, inside a building that houses explosive operations, increases the risk of an accident that could cause injury to personnel or damage to property. Should hazardous material or waste ignite, its propagation is enhanced by materials around it. In our facilities, we limit the number of personnel, and control the amount and location of explosives, to the minimum required for safe and efficient operation. That holds true for other hazardous and flammable/combustible materials, including chemicals and related wastes. This means the only explosives staged are those quantities considered work in progress (WIP). There also is no bulk storage (55-gallon containers) within energetic buildings of other hazardous chemicals (e.g., flammable solvents). Container sizes are limited to five gallons or less, and they are stored inside cabinets designed for storage of flammable materials, with only small quantities out in the work areas, typically a pint or less. The only time bulk quantities of hazardous chemicals are present in energetic buildings is on a temporary basis as WIP, such as when they are to be added to a process.

In addition to the hazards posed by explosive operations, additional hazards from inside storage of flammable or combustible wastes are posed from the electrical switches, wires, conduit and equipment that can ignite such materials, and could then spread and involve any explosives in the building. Mixing of flammable or combustible liquids can lead to more deleterious effects. Our mixed flammable solvent waste streams can contain such chemicals as acetone, heptane, isopropyl alcohol, and methyl ethyl ketone (MEK). The hazards of combining flammable materials are not as well understood, just as the mixing of energetic ingredients and can lead to easier ignition. “Experiments show that the flash point of flammable liquid is easy to decrease and hard to increase”<sup>3</sup> Additional hazards include creating more toxic materials after combination. “Chemical reactions involving two or more substances may form reaction products that are significantly more toxic than the starting reactants.”<sup>4</sup> One of the more commonly used

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<sup>1</sup> DOD Contractor’s Safety Manual For Ammunition and Explosives, DoD 4145.26-M, March 13, 2008, C.3.2.1.

<sup>2</sup> DOD Contractor’s Safety Manual For Ammunition and Explosives, DoD 4145.26-M, March 13, 2008, C.3.4.1.

<sup>3</sup>

[http://lib.hpu.edu.cn/comp\\_meeting/PROGRESS%20IN%20SAFETY%20SCIENCE%20AND%20TECHNOLOGY%20VOL.V1/1479.doc](http://lib.hpu.edu.cn/comp_meeting/PROGRESS%20IN%20SAFETY%20SCIENCE%20AND%20TECHNOLOGY%20VOL.V1/1479.doc).

<sup>4</sup> Prudent Practices for Handling Hazardous Chemicals in Laboratories, National Research Council, 1980, p.30.

flammable liquids that becomes part of our flammable waste stream is known to increase the risk of fire spreading beyond the hazardous waste container. Isopropyl alcohol is a “very dangerous fire hazard when exposed to heat, flame or oxidizers.”<sup>5</sup> The others have similar characteristics and also likely increase the risk of fire. Therefore, to minimize these effects, those hazardous wastes are collected and stored outside in the satellite accumulation points.

In sum, consistent with the DOD Contractor’s Safety Manual, Aerojet has taken the above approach with hazardous chemical waste -- that there be no satellite accumulation of flammable or liquid wastes in 55-gallon containers inside energetic buildings -- to minimize both the amount of time and the amount of hazardous material and waste inside the building, thus reducing the risk of a fire or explosion spreading inside an energetic building.

### Clarifications

Aerojet also has taken steps to ensure compliance with all appropriate requirements for two outside storage areas at Building 202 that were identified in Photos #325 and 326; and also 327. One of the areas in question was never intended to be used for waste accumulation (the chemical storage cabinet shown in Photos #325 and #326), and the second was never intended to be a 90-day accumulation area (the “daily empty” energetic waste containers shown in Photo #327).

The flammable storage cabinet shown in two of the three photos from Building 202 (Technology Lab) that are referenced in the NOV under alleged violation #2 (*see Photos #325 and #326 in Attachment C*) was not intended for waste accumulation. The cabinet in question was used to hold small containers of chemicals and samples from the lab which were pending determination by the lab supervisor for disposition. It was not to be used for waste storage. During the inspection, a couple of small bottles and bagged samples labeled as waste were observed in this cabinet. Before the EPA inspector left the site, those wastes were removed, placed in appropriate waste containers for accumulation, and a new sign posted on the front of the cabinet that it is not to be used for waste storage and to contact the Environmental Department with any questions regarding waste disposal (*see Photo #332 in Attachment C*). To avoid any further confusion, this storage cabinet was recently removed from the building. The building occupants have been instructed to contact the Environmental Department when there are any lab chemicals or samples that require disposal, and they are picked up and removed by the Environmental Department to the 90-day chemical waste area at Building 24.

Photo #327, which was not specifically cited in alleged violation #2 but is included in the EPA inspection report, shows three “daily empty” containers for energetic hazardous waste (D003). The containers are in a small poly shed located at the rear side of Building 202 (Technology Lab). The containers are ten-gallons each, have a hazardous waste label (not dated), and are used for separate collection of 1.1 explosive waste, 1.3 explosive waste, and energetic waste with RCRA metals (e.g., D007, D008). 1.1 and 1.3 explosive wastes are separated for compatibility reasons consistent with Aerojet safety policy and energetic waste management procedures, and the RCRA metal-containing energetic wastes are segregated per our energetic waste management

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<sup>5</sup> Lewis, R.J. Sax's Dangerous Properties of Industrial Materials. 9th ed. Volumes 1-3. New York, NY: Van Nostrand Reinhold, 1996., p. 1977].

procedures because they must be shipped offsite for disposal (cannot be open burned onsite under our current RCRA permit.) These energetic wastes are collected at the building where they are generated, and at the end of each operating day (at end-of-shift, more frequently if necessary), are transferred to our 90-day area at Building 112 for energetic wastes, placed in the appropriate labeled and dated containers, and are accumulated for less than 90 days prior to onsite or offsite treatment. These individual energetic waste containers were recently moved back inside the building and placed at or near the points of generation. They will continue to be emptied daily.

### Summary

In conclusion, Aerojet submits that the satellite accumulation areas (SAAs) in question, which are located outside Buildings 26 and 202 (Photos #301 and 324) for safety reasons due to the energetic/explosive operations conducted in those buildings, are "at or near the point of generation", and are in compliance with the requirements of 9VAC 20-60-262 [40 CFR 262.34(c)(1)]. We have provided an explanation of the facts and circumstances outlining why Aerojet submits it was not in violation of these requirements for the SAAs, and further justification on the outside location of these satellite areas. We also provided clarification regarding two outside storage areas at Building 202 that EPA identified by photograph in the inspection report (the first is shown in Photos #325 and #326, and the second in Photo #327), and the measures we have taken with respect to these areas to ensure compliance with all appropriate requirements.

Should you have any further questions or contacts, or need additional information, please contact me at (540) 854-2037 or at [Tim.Holden@aerojet.com](mailto:Tim.Holden@aerojet.com).

Sincerely,

AEROJET CORPORATION



Timothy E. Holden  
Environmental and Safety Manager  
Virginia Operations

ATT

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cc: Terry DiFiore, EPA (3LC70)  
Richard Doucette, DEQ-NRO  
Bill Schwennesen, Aerojet  
Terry Leonard, Aerojet  
Chris Conley, Aerojet  
Bill Hvidsten, Aerojet

## ***LIST OF ATTACHMENTS***

- A. Notice of Violation for Compliance Evaluation Inspection of August 14, 2007; U.S. EPA Region III; January 5, 2009.**
- B. Document Record Detail, U.S. EPA RCRA Online (<http://epa.gov/osw/rcra.nsf/>); Title: Satellite Accumulation Area Regulations; Letter to ARC from Director of EPA/OSW of January 13, 1988; Letter from ARC to EPA/OSW of November 30, 1987.**
- C. Photos from RCRA Compliance Evaluation Inspection Report, Date of Inspection August 14-15, 2007; Report Dated December 15, 2008 (attached to Notice of Violation of January 5, 2009); U.S. EPA Region III (Photos #301, #324 thru #326, #327).**
- D. Description of Energetic Operations and Waste Generation Activities at Buildings 26 and 202.**

**ATTACHMENT A**

**AEROJET CORPORATION  
ORANGE COUNTY FACILITY**

**Notice of Violation for Compliance Evaluation Inspection of August 14, 2007;  
U.S. EPA Region III; January 5, 2009  
(Without Attachments).**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029

**VIA FEDEX**

**JAN 05 2009**

Rodger Snyder, Plant Manager  
Aerojet Corporation  
7499 Pine Stake Road  
Culpeper, VA 22542

**Re: Notice of Violation**  
Compliance Evaluation Inspection  
August 14, 2007  
EPA ID No. VAD981112618

**Docket No.: R3-09-NOV-RCRA-09**

Dear Mr. Snyder:

On August 14, 2007, the U.S. Environmental Protection Agency, Region III ("EPA") conducted a Compliance Evaluation Inspection ("CEI") of your facility in Rhoadesville, VA. under the federally authorized Commonwealth of Virginia Hazardous Waste Management Regulations ("VAHWMR") and the Resource Conservation and Recovery Act ("RCRA"), as amended, 42 U.S.C. Sections 6901 et seq. The Inspection Report is attached to this letter. Based on the inspection, EPA has determined that Aerojet Corporation (Aerojet or the Facility) has violated regulations under VAHWMR and RCRA. As a result of this determination, EPA is issuing this **Notice of Violation ("NOV")**. The specific violation(s) are:

1. The inspector observed ejected material at the Burn Area on the ground which had not been removed since the last burn in violation of 9VAC 20-60-268 (40 CFR 268.50).
2. The facility failed to date containers stored outside Building 26 (Photo #301) and Building 202 (Photos #324 thru #326) in violation of 9VAC 20-60-262 [40 CFR 262.34(a)(2)]. These areas are not satellite accumulation areas because their outdoor location does not qualify as "at or near the point of generation" as required by 9VAC 20-60-262 [40 CFR 262.34(c)(1)] and thereafter must be managed as 90 day areas.
3. The inspector observed air filters at Building 214 (Photos #222 & #323) that were not in closed containers, labeled, and dated in violation of 9VAC 20-60-262 [40 CFR 262.34(a)].

Within twenty (20) calendar days of the receipt of this NOV, please submit a response documenting the measures the facility has taken or is taking to achieve compliance with violation #2 noted above or provide an explanation of facts and circumstances that cause you to believe that EPA's determination of the alleged violations are in error. If the compliance measures identified are planned or are on-going, please provide a schedule for when the compliance measures will be completed. Violations #1 and #3 have been documented as returned to compliance in the inspection report.

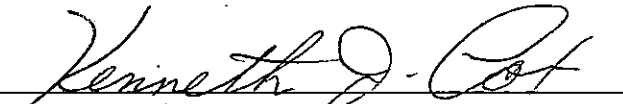
Section 3008(a) of RCRA authorizes EPA to take an enforcement action whenever it is determined that any person has violated, or is in violation, of any requirement of RCRA as amended. Such an action could include a penalty of up to \$32,500 per day of violation. In addition, failure to achieve and maintain compliance with the regulations cited in this Notice of Violation may be treated as a repeated offense and may constitute a "knowing" violation of Federal law.

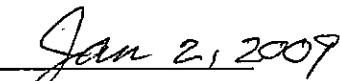
This Notice of Violation is not intended to address all past violations, nor does it preclude EPA from including any ongoing, including the one cited in this letter, or past violations in any future enforcement action. Response to this NOV shall be addressed to:

Kenneth J. Cox  
Land and Chemicals Division (3LC70)  
U.S. Environmental Protection Agency - Region III  
1650 Arch Street  
Philadelphia, PA 19103

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With regard to the Small Business Regulatory Enforcement and Fairness Act (SBREFA), please see the "Information for Small Businesses" memo, enclosed, which might be applicable to your company. This enclosure provides information on contacting the SBREFA Ombudsman to comment on federal enforcement and compliance activities and also provides information on compliance assistance. As noted in the enclosure, any decision to participate in such program or to seek compliance assistance does not relieve you of your obligation to respond in a timely manner to an EPA request or other enforcement action, create any rights or defenses under law, and will not affect EPA's decision to pursue this enforcement action. To preserve your legal rights, you must comply with all rules governing the administrative enforcement process. The Ombudsman and fairness boards do not participate in the resolution of EPA's enforcement action. EPA has not made a determination as to whether or not you [or your company] are covered by the SBREFA.

  
Carol Amend, Associate Director  
Land and Chemicals Division  
Office of Land Enforcement

  
Date

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Enclosure

cc: Justin Williams (VADEQ) with Enclosure  
Terry DiFiore (3LC70) w/o Enclosure  
Ken Cox (3LC70) w/o Enclosure

RCRA Compliance Evaluation Inspection

**AEROJET CORPORATION**

7499 Pine Stake Road  
Culpeper, Virginia 22542

DEC 15 2008

Facility located at:  
Intersection of routes 621 & 602  
7499 Pine Stake Road  
Rhoadesville, Virginia 22542

Telephone Number: 540-854-2000

Date of Inspection: August 14 - 15, 2007

RCRA Identification Number: VAD 981 112 618

Web Address: [www.aerojet.com](http://www.aerojet.com)

SIC Code: 3764

Latitude: 38.1835 N

Longitude: 77.5514 W

EPA Representative: George H. Houghton  
Environmental Protection Specialist

State Representative: Maria Raney  
Inspector - VADEQ

Facility Representative: Timothy Holden  
Environmental Manager  
540-854-2037

James Berkes  
Senior Environmental Engineer  
540-854-2124

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Rodger Snyder  
Plant Manager  
Director of Operations

## BACKGROUND

At the request of the Waste and Chemical Management Division, EPA Region III, the Fort Meade office of OECEJ inspected Aerojet Corporation located in Rhoadesville, Virginia for compliance with the RCRA regulations. The facility was not notified prior to the inspection. The state agency, VADEQ, was notified at least two weeks prior to the inspection and they were present during the inspection.

## FACILITY DESCRIPTION

Aerojet is wholly owned subsidiary of Gen Corporation. In 2005, the production facilities moved from Gainesville, VA to this location as well as Sacramento, CA and Arkansas. The Rhoadesville location has been in operation since 1989 and consists of about 2500 acres of property, of which, about 150 acres are developed. Employment is around 150.

Aerojet purchased the assets of ARC/Sequa in 2003 and by April 2005 all production had been moved from Gainesville, VA to this and other locations. ARC retained the cleanup responsibilities at Gainesville, which is now in progress.

At this location, Aerojet produces propellant named D5 along with the propellant for the Nulka missile system. In addition, the facility has a R&D group along with scale-up for development of new propellant products. All manufacturing processes are batches where ingredients are mixed in vessels. The basics ingredient for the propellant is HMX (cyclotetramethylene- tetranitramine), a powerful and relatively insensitive nitroamine high explosive. It is manufactured off-site and brought to this location. A second ingredient is AP (Ammonium perchlorate) and finally Aluminum powder. Additional ingredients are than added to the HMX to attain the desired effect. The material is then cast into sleeves, cured by baking milled to its desired shape and placed in the rocket motor housing. Each one of these steps can generate an energetic waste that is destroyed at the burning ground. In addition, these steps can generate a chemical hazardous waste that is stored and shipped off-site for disposal. RDX (Cyclotrimethylenetrinitramine), another energetic waste, is associated with R&D rather than manufacturing.

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According to the facility, each energetic waste generation location has container(s) to receive the waste located outside the production areas. That waste is transferred to the <90 day storage building (area 112), located near the burning grounds, daily. There were no scheduled burns during this inspection. The next burn was tentatively scheduled for September 18, 2007. Their last burn was 6-26-2007. Previous burns were in January and April of 2007.

VADEQ last inspected the facility in February 2007.

## PERMIT STATUS

Aerojet is a large quantity generator of chemical and energetic hazardous waste, storing for less than 90 days. The facility has an RD&D permit, Subpart X, that was issued in 1990 to destroy the energetic waste and propellant contaminated debris. It is a 365 operating day permit and, at the time of this inspection, the facility had operated for 93 days. Aerojet did apply for a new Part B permit on 9/30/2007 and is meeting with VADEQ concerning this permit.

## INSPECTION OBSERVATIONS

Initially, the inspectors presented their credentials to the facility representative. It was also explained that this was a routine inspection lead by EPA. After the introductions, the facility gave a brief description of the manufacturing process and hazardous waste generation. The inspectors then observed the waste accumulation points, storage locations and burning ground, followed by a paperwork review.

A listing of all the storage areas is included (attachment 2). These locations are inspected weekly to ensure the materials are properly stored. Attachment 2 is also an example of the inspection record for each of these locations.

Energetic waste is first accumulated at area 112 and then destroyed at the Thermal Treatment Unit (TTU). The facility burns about 5 times yearly or at 90 day intervals, depending on production. The inspector observed the storage buildings at 112. They are labeled 112-A, 112-B, 112-C and 112 (photographs 305 to 312). In general, all of the containers were labeled, dated and closed. None of the material is liquid. Building A held numerous containers of R & D waste and D5 waste. This waste will be destroyed on site. In Building B and Building C, each container was labeled, dated and closed. These containers were being staged for off site disposal.

Not far from the storage building, is the burn area (photos 313 to 320). The facility has 4 burn pads; labeled TTU-1 through TTU-4. The waste propellant is burned in pans. They were designed and made by ARC and some were used at the Gainesville facility. Each pan resembles a 1000 gallon tank, cut in half, longitudinally. Energetic waste is burned in pans that are lined with inert material. When not in use, each pan is covered to minimize moisture from entering the pan.

The burn area is bermed and two fire breaks surround the entire burn area. Waste ash is collected and shipped off-site as a hazardous waste even though it is not considered a hazardous waste. Prior to 2000 the waste was disposed as a non-hazardous waste stream. Ashland

Environmental is the disposal contractor. If the material burned contains solvent, the residues are shipped off-site as an 'F' listed waste. TTU-1 had 4 covered pans. One of the covers was removed and some ash was observed. Also, on the ground around the pan, some residual ash was observed. TTU-2 is used to destroy R&D waste. Ejected material was observed on the ground and should be removed. The inspector revisited the burn area the next day and observed that the ejected material had been removed. Photo 335 shows the area. Their last burn was in June. TTU-3 is not used for burning at this time. The facility stores some equipment in this area. TTU-4 had 4 useable pans and 2 spare pans. Also observed were 2 cages for burning of metal parts contaminated with propellant (photo 317). This area is also used for R&D waste.

Aerojet keeps track of the amount of energetic waste in storage. They are limited to 7,000 pounds at any one time. The inspector obtained a sample log (attached) for the time period of this inspection. Logs for the individual storage sheds were also obtained and they showed that the amount of waste did not exceed the 7000 pound limit, in total, for all sheds.

During a burn, the facility is required to monitor for various parameters. The facility provided to this inspector monitoring information that resulted from the June 2007 burn and an annual summary. This data is submitted to Region III as part of the RD&D permit. A copy of this data is available from this inspector, upon request. The data included date, time, temperature, quantity, weather projections and actual location weather conditions with air monitoring before and during the burn. Air emission parameters reported include NH<sub>3</sub>-N, HCl, AL, Cr, Pb, CO and total suspended particulates (TSP). In addition, the facility monitors the ground water, storm water and soil around the Thermal Treatment Unit, again as part of the RD&D permit. Soil samples are collected and, in a cursory review, this inspector did not observe any data points that were obviously outside a normal range. The data is available from this inspector upon request.

In addition to the burning grounds and the associated storage area, several generation points were observed for compliance with the waste rules. Building 24, not actually a building but a cluster of storage sheds (photo 300), is used to store waste before disposal off site. At the time of this inspection, only one container of waste was observed in storage. It was properly labeled, dated, closed and stored in one of the sheds. This shed has secondary containment. Their last waste shipment was on July 30, 2007 with the previous shipment on June 17, 2007.

Building 26, a prep building for components, and a paint area, had one container of used solvent, managed as a SAP. It was located in a self storage unit just outside the building (photo 301). The one 55 gallon drum was about 2/3 full, closed, labeled and not leaking. No date was observed on the container label. This container is part of the facility's weekly inspection program. One additional container was located inside the building and it was about 1/2 full of waste. This container is managed using the satellite rules. It was closed, labeled and not leaking.

At Building 26, in a small laboratory room, the inspector observed a 2 gallon container, it was empty (photo 302). The contents of this container are transferred to area 112 as energetic waste. This container is managed using the satellite rules. It was properly managed.

Building 5 is used as a maintenance area and machine shop for component manufacturing. One container held rags contaminated with solvent (photo 304) and was stored outside the building. The waste is generated inside the building then transferred to this container. It is managed as a satellite accumulation point but not under control of the operator, otherwise it was properly managed.

Building 214 is used for 'cut back'. To the facility, this term means using a powered cross cut saw to cut propellant to a desired length. The process is controlled remotely. The resultant dust from the cutting process is drawn into a water baffle tank (photo 321). The fines are caught by a .5 micron filter. Waste water is placed in a drum and managed as a non-hazardous waste (photo 323) and sent off-site for disposal. The filter is disposed as an energetic waste either on site or off-site, depending on the content of the propellant. Any residual on the floor is packaged and transferred to the burning grounds the same day it was generated. In addition, the building has air filters that are changed out periodically. Four used filters, dated April 2007, were observed (photo 22) along with additional used filters (photo 323). According to facility procedures, these filters should be transported to 112 at the end of the shift. The filters are disposed as energetic waste, similar to the .5 micron filters. The inspector revisited the location after the initial observation and the filters had been removed. Photo 334 shows those filters at area 112, the next day.

Building 202 is the R&D and QC laboratory; the inspector observed a number of containers, all managed using the satellite rules. All the containers observed in this area were labeled as a hazardous waste, closed not dated and not leaking. Waste observed in the lab space, was either stored in hoods or adjacent to the equipment generating the waste (photos 328 & 329). These containers are emptied into the appropriate drum located outside the laboratory building, on an as needed basis. In addition, three storage enclosures were observed outside the laboratory building. All are managed as SAPs and none of the containers were dated. One enclosure held mixed acidic waste and solvent waste in a separate container (photo 324). Another group held energetic waste (hot trash) in three separate containers (photo 327). The contents of these three containers are transferred to 112 at the end of each day. The third enclosure was labeled 'flammable' (photo 325) and held a number of smaller containers (photo 326). Each of the containers was labeled for content. Based on the labels, not all appeared to be hazardous when disposed. None were labeled as a hazardous waste or dated. The containers that appeared to be hazardous were labeled as: lead paste waste, KOH, and Silver Nitrate. The exact reason why this material was stored in this manner was not determined. Reportedly, this cabinet is checked

weekly (attachment 1).

Building 208 held x-ray equipment that uses wet chemistry to develop the film. As a result, a spent silver fixer waste is generated. (Photo 332) The equipment recovers the silver through an electrolytic process and the recovered silver is sold. After recovery, water is processed by a distillation unit. The resultant sludge is shipped off site as hazardous waste and the distilled water is captured and shipped off site as a non-hazardous waste. No RCRA issues were observed at this location.

Building 211 houses alcohol recovery equipment. HMX arrives in a water/alcohol solution. In order to be useful, as an ingredient by Aerojet, the water/alcohol is removed. In a distillation process, the mixture is captured in a condensate tank (photo 333). The condensate is not reclaimed and is stored in this tank only during the reclamation process. The tank is not labeled as a hazardous waste. At the end of the process, the water/alcohol mixtures is drummed and stored at building 24. It is shipped off site as a hazardous waste through the facility contactor. This equipment was not in operation during this inspection and no waste was observed.

Aerojet does not typically test its waste for disposal purposes. Given that it may be explosive that is probably a good idea. The facility does test the ingredients used in the product to make sure it meets specifications. They use this knowledge to determine if the material is a hazardous waste or not. They will test waste to ensure the waste is/not a hazardous waste. These tests are for non-energetic waste.

Manifests were reviewed and they appeared to be complete for the information provided on the manifests. LDRs were attached. Sample copies are included with this report for your information. The ash residue for energetic material that has a solvent component is shipped offsite as 'F' listed waste (see manifest dated 5/29/2007). Ash that resulted from energetic material that did not contain either solvent or metals is shipped offsite as a RCRA regulated waste. Currently the waste disposal contractor is Ashland Chemical.

Training is accomplished monthly in a classroom setting. The facility also has monthly safety meetings.

---

The contingency plan was not reviewed in any detail since the facility has a permit and it was reviewed during that process. The facility has also applied for a new permit and the contingency plan is part of the submittal.

VOC emissions under RCRA did not appear to be an issue at this facility. The facility does use some solvent and they have a small vapor degreaser that uses a chlorinated solvent

(photo 303). The inspector observed the unit. Upon generation, the waste is placed in DOT drums for shipment offsite disposal. Other areas had solvent rags; they are kept in closed containers. Some of the energetic materials have solvents. This material is typically destroyed at the burning grounds unless metal is part of the formulation. The ash residue for solvent energetic material is shipped offsite as containing 'F' listed waste (see manifest dated (5/29/2007)).

---

**ATTACHMENT B**

**AEROJET CORPORATION  
ORANGE COUNTY FACILITY**

**Document Record Detail, U.S. EPA RCRA Online (<http://epa.gov/osw/rcra.nsf/>); Title:  
Satellite Accumulation Area Regulations; Letter to ARC from Director of EPA/OSW  
of January 13, 1988; Letter from ARC to EPA/OSW of November 30, 1987.**



## U.S. ENVIRONMENTAL PROTECTION AGENCY

## RCRA Online

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How To

## Document Record Detail

**Full Document:**


**Title:** SATELLITE ACCUMULATION AREA REGULATIONS  
**RCRA Online Number:** 11317  
**Date:** 01/13/1988  
**To:** Young  
**From:** Williams  
**Organization of Recipient:** Atlantic Research Corp.  
**Description:** Satellite accumulation areas are not subject to permitting, interim status, or the requirements for generator storage under 262.34(a).  
**Regulatory Citation(s) :** [262.34\(c\)](#) [EXIT Disclaimer](#)  
**Statutory Citation(s):** [NA Read US Code 42, Chapter 82](#) [EXIT Disclaimer](#)  
**Topic(s):** Generators; Hazardous Waste; Permits and Permitting; Large Quantity Generators (LQG); Storage  
**Approximate Number of Hardcopy Pages:** 2  
**EPA Publication Number:** NA  
**RPPC Number (if applicable):** NA  
**Official OSW Policy:** No

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20410

OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

JANUARY 13, 1988

Michael E. Young  
Environmental Compliance Officer  
Atlantic Research Corporation  
Propulsion Division  
7511 Wellington Road  
Gainesville, VA 22065-1699

Dear Mr. Young:

This is in response to your November 30, 1987 letter to Michael Petruska concerning your hazardous waste container storage areas.

The storage areas you describe appear to be satellite accumulation areas. A satellite accumulation area must be at or near any point of generation where wastes initially accumulate. The satellite accumulation area should also be under the control of the person operating the waste generation process, and your operation appears to meet these criteria.

If ARC accumulates no more than 55 gallons of hazardous waste or one quart of acutely hazardous wastes at each satellite area and follows the other requirements of 40 CFR 262.34(c), the areas would not be subject to permitting, interim status, or the requirements for generator storage at Section 262.34(a).

If you have further questions in this area, please continue to communicate with Michael Petruska of my staff at (202) 475-8551.

Sincerely

Marcia E. Williams  
Director  
Office of Solid Waste

ATLANTIC RESEARCH CORPORATION  
ROPULSION DIVISION 7511 WELLINGTON RD., GAINESVILLE, VIRGINIA 22065-1699 703-642-6000

November 30, 1987

Mr. Michael Petruska  
Environmental Protection Agency  
OSW-WH562  
401 M Street, SW  
Washington, DC 20460

Dear Mr. Petruska

Atlantic Research Corporation (ARC) requests a formal clarification of CFR 40 Section 262.34(c) (1) as it pertains to our facility at 5945 Wellington Road in Gainesville, Virginia. The plant, which is 420 acres and comprised of approximately 150 small buildings, manufactures solid rocket propellant. In its operations, ARC generates waste chemicals which are accumulated in containers located in storage sheds outside of the buildings generating the materials. The waste chemicals are accumulated outside of the buildings for safety reasons due to the explosive nature of the work conducted. The waste chemical containers are moved from the storage shed once they are filled and taken to our waste chemical storage facility where the start accumulation begins and arrangements for off-site disposal at a TSD facility are made.

ARC believes that the storage sheds described above satisfy the requirements for satellite storage as described in CFR 40 Section 262.34(c) (1). ARC's storage sheds are located as close as safety permits to the operation generating the waste chemicals and no more than one container per material is located in any single shed. ARC consulted EPA's Industry Assistance Group about our storage facilities. The Industry Assistance personnel stated our facilities do fall under the definition of CFR 40 Section 262.34(c) (1) and referred us to you for a written confirmation of their interpretation.

If you have any questions or need additional information, contact me at (703) 642-6411.

Sincerely,

---

Michael E. Young  
Environmental Compliance Officer

MY/as

FaxBack # 11317

**ATTACHMENT C**

**AEROJET CORPORATION  
ORANGE COUNTY FACILITY**

**Photos from RCRA Compliance Evaluation Inspection Report;  
Date of Inspection: August 14-15, 2007;  
Report Dated December 15, 2008  
(attached to Notice of Violation of January 5, 2009);  
U.S. EPA Region III.**

**Photo #301 (Building 26)**

**Photos #324 thru #327, #332 (Building 202)**

**AEROJET CORPORATION**

Intersection of route 621 & 602

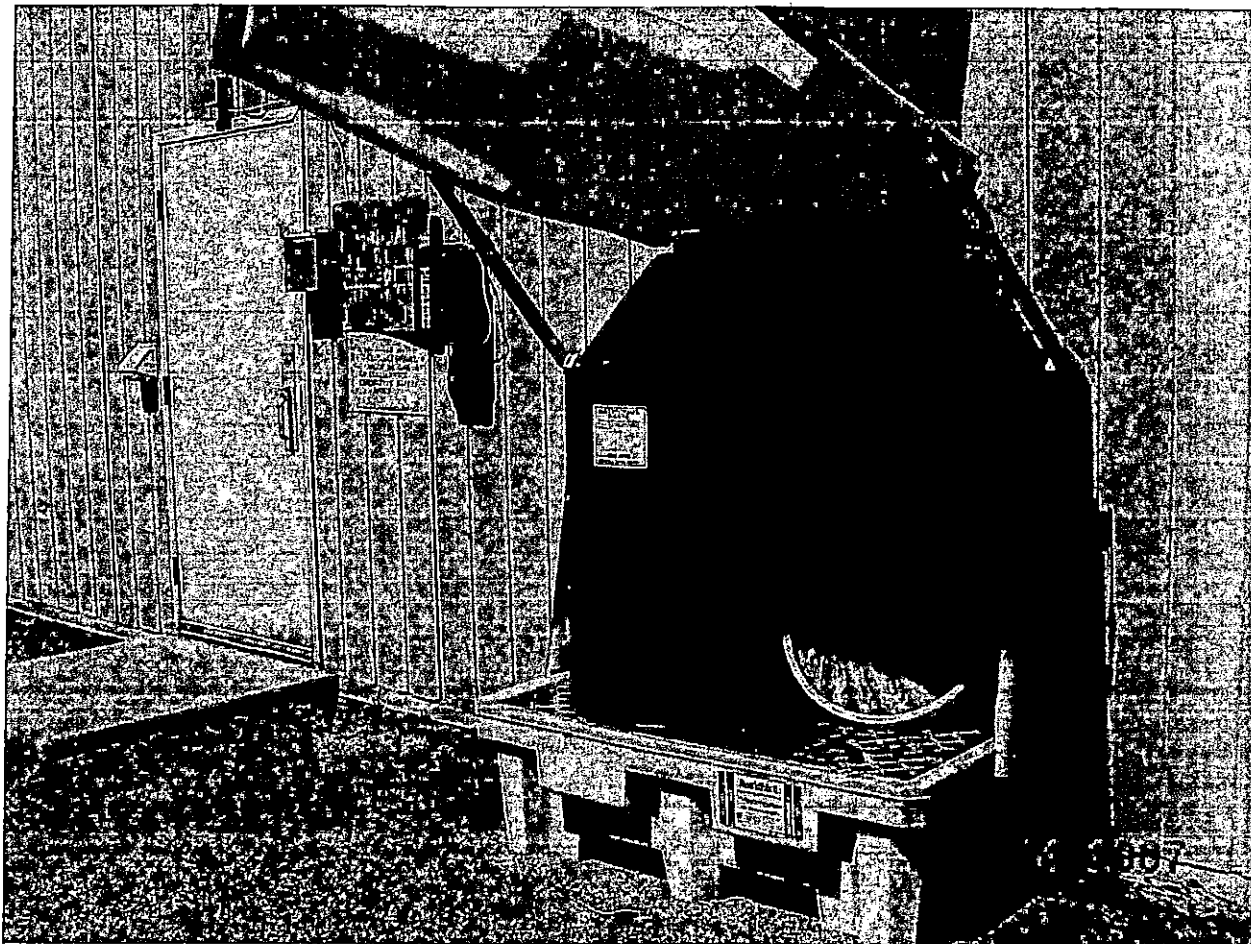
7499 Pine Stake Road

Rhoadesville, Virginia 22542

RCRA Identification Number: VAD 981 112 618

G. Houghton

301



This storage enclosure was observed just outside building 26. The container was labeled and closed but not dated. It is managed as a satellite container. The waste is generated inside the building and stored in this container.

**AEROJET CORPORATION**

Intersection of route 621 & 602

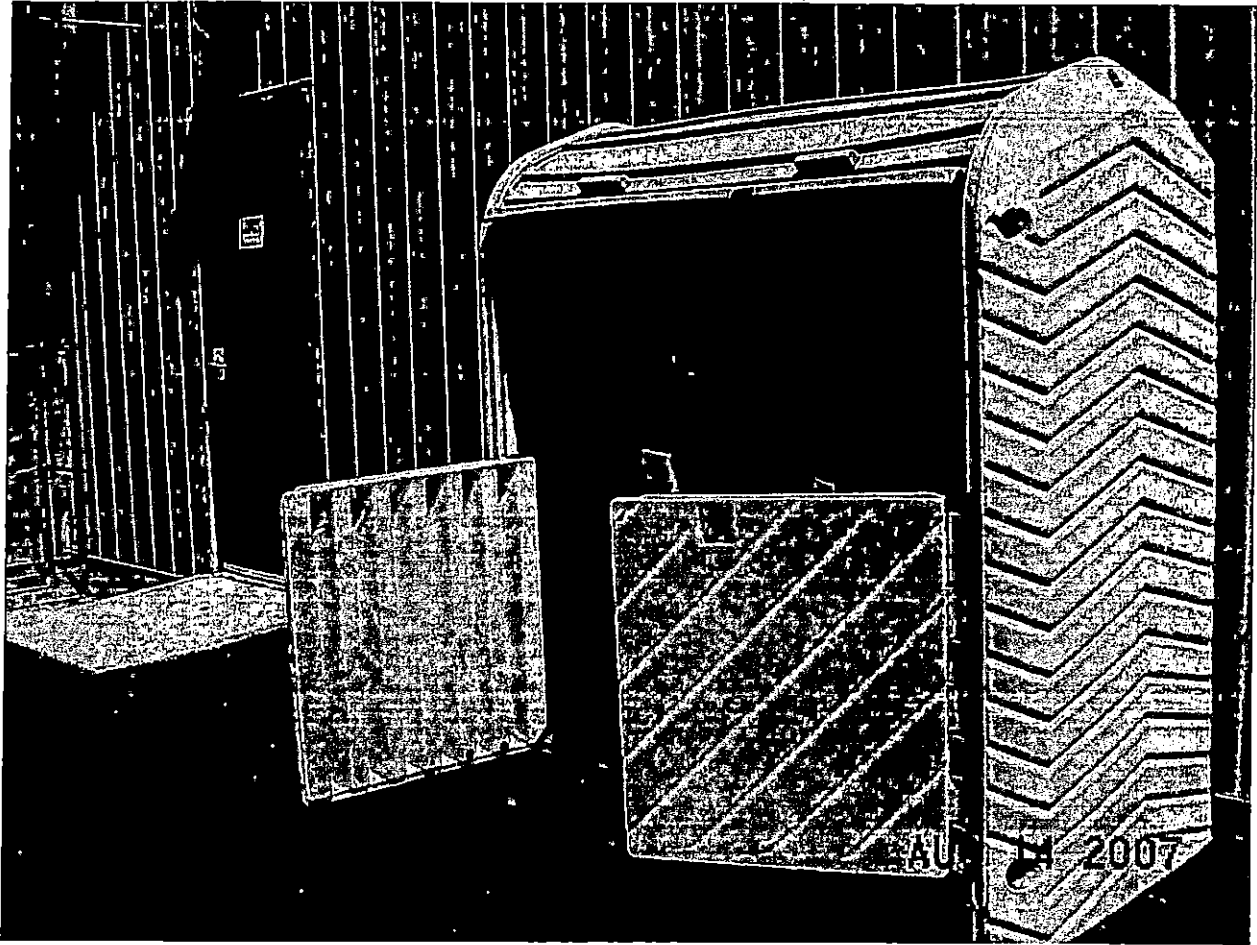
7499 Pine Stake Road

Rhoadesville, Virginia 22542

RCRA Identification Number: VAD 981 112 618

G. Houghton

324



Building 202, laboratory, this shelter held one container of waste. It s managed as an SAP. The container was labeled and closed but not dated. It held mixed acids. The waste is generated inside and brought here for accumulation.

**AEROJET CORPORATION**

Intersection of route 621 & 602

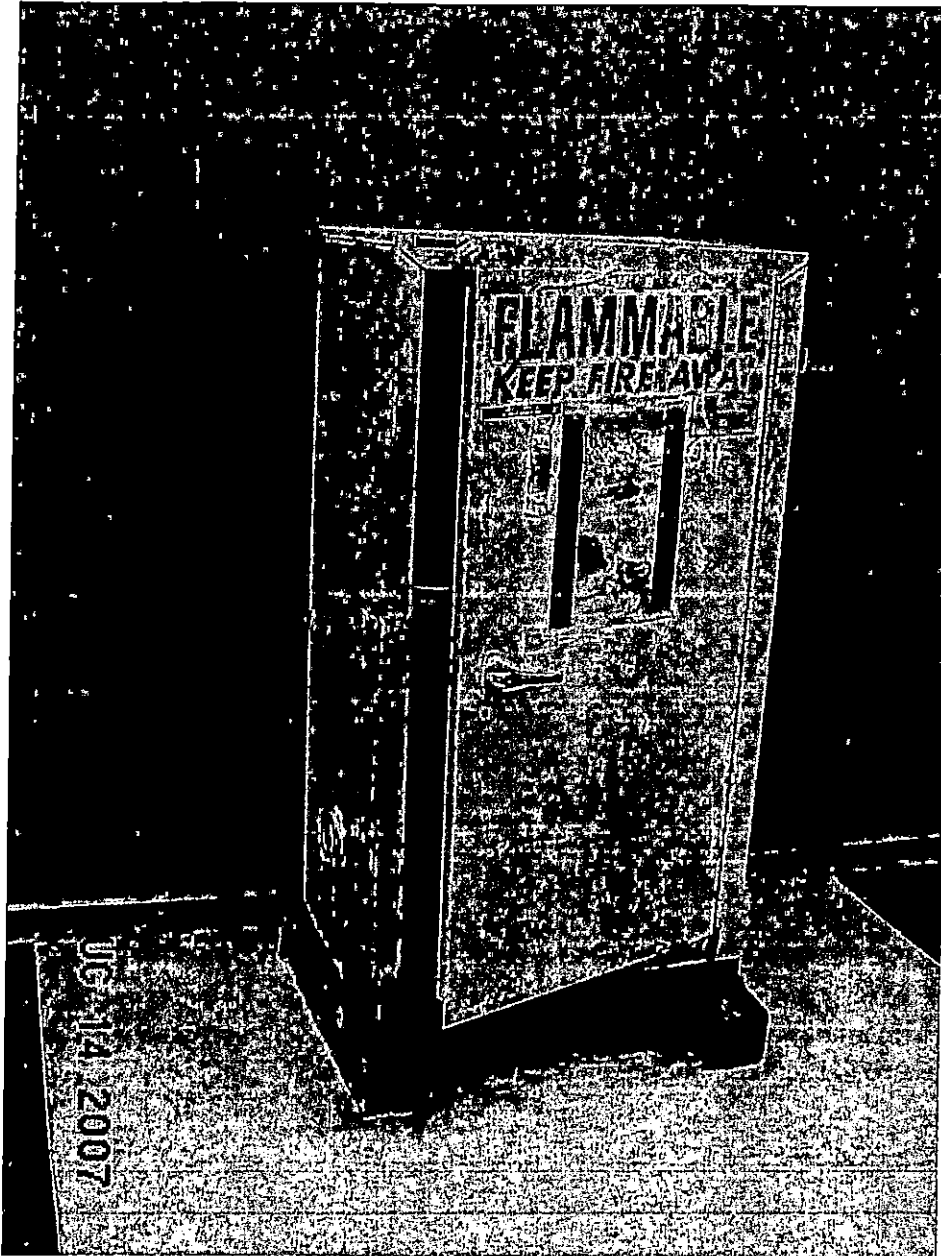
7499 Pine Stake Road

Rhoadesville, Virginia 22542

RCRA Identification Number: VAD 981 112 618

G. Houghton

325



Building 202, laboratory, this flammable cabinet held numerous containers of waste. Not all of the waste was hazardous. Each container was labeled for content but was not labeled as a hazardous or dated. Each container was not leaking and was closed. This waste is generated in the lab and brought to this cabinet for accumulation.

**AEROJET CORPORATION**

Intersection of route 621 & 602

7499 Pine Stake Road

Rhoadesville, Virginia 22542

RCRA Identification Number: VAD 981 112 618

G. Houghton

326



Building 202, laboratory, this is the same cabinet as photo 325. It shows the contents of the cabinet. Based on the labeling some of the waste stored will be hazardous when disposed.

**AEROJET CORPORATION**

Intersection of route 621 & 602

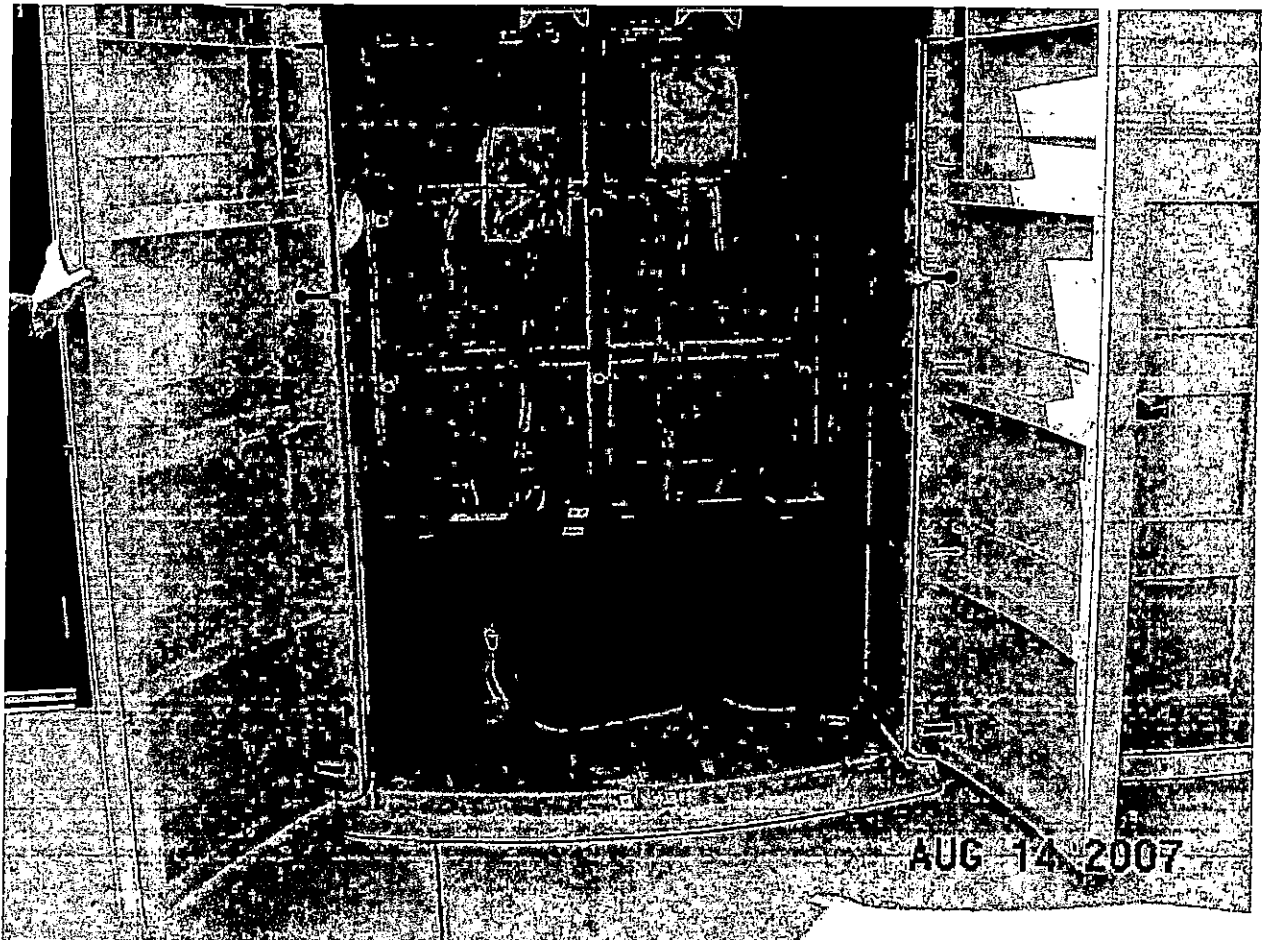
7499 Pine Stake Road

Rhoadesville, Virginia 22542

RCRA Identification Number: VAD 981 112 618

G. Houghton

327



Building 202, laboratory, these three containers held energetic waste. Any waste in these cans is taken to 112 for storage at end of the shift.

**AEROJET CORPORATION**

Intersection of route 621 & 602

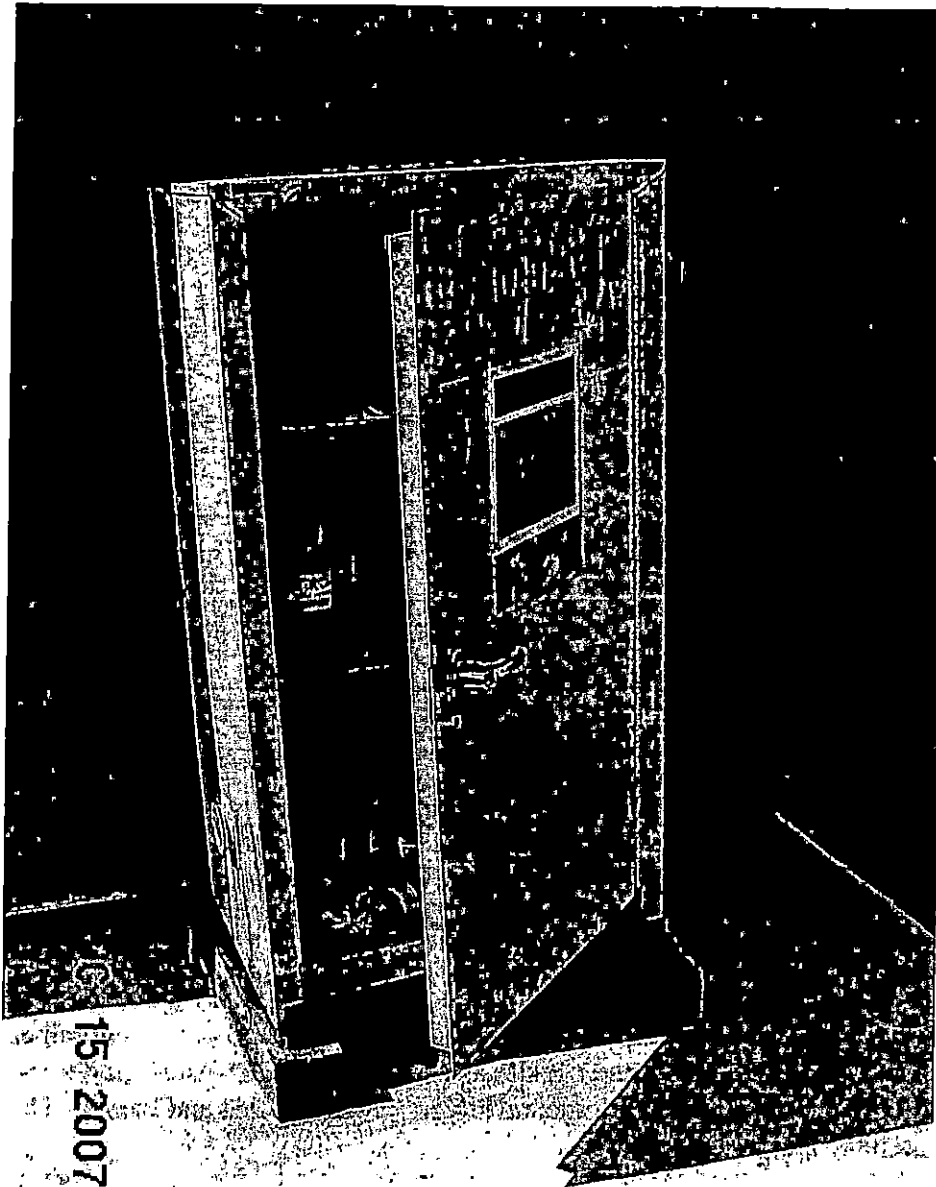
7499 Pine Stake Road

Rhoadesville, Virginia 22542

RCRA Identification Number: VAD 981 112 618

G. Houghton

332



Building 202, laboratory, the following day the inspector revisited the flammable cabinet. It has now been relabeled and the potentially hazardous waste has been removed. The remaining waste was not deemed to be a hazardous waste when disposed.

## **ATTACHMENT D**

### **AEROJET CORPORATION ORANGE COUNTY FACILITY**

#### **Description of Energetic Operations and Waste Generation Activities at Buildings 26 and 202.**

**Building 26** is a multi-function building. The left side of the building, where the outside satellite accumulation area is located (*see Photo # 301 from the EPA inspection report, in Attachment C*), houses an igniter assembly area and an explosives testing lab (e.g., particle size, total solids, and moisture analyses of explosive ingredients and propellants). This side of the building is approved for up to 10 pounds of Class 1.1 explosives. Small quantities (less than ten gallons per year) of flammable solvent waste (heptane, isopropyl alcohol, methanol) are generated from explosives testing, specifically particle size testing of HMX. This flammable liquid waste is removed from the point of generation at a minimum daily when the process is active, and taken to the outside satellite accumulation area which is located immediately outside the door from that room/area and immediately adjacent to the building. Note that the right side of the building houses inert (non-energetic) operations, and has two separate satellite accumulation areas located inside the building for different chemical (non-liquid) waste streams at different points of generation.

**Building 202** is the Technology Laboratory, which houses analytical and other equipment and processes for testing of propellants, propellant ingredients, and insulation/liner materials in support of Manufacturing, Quality, and R&D efforts. The building is approved for up to 100 pounds of Class 1.1 explosives (mass detonating). Small quantities of reagent chemicals are generated from both the Quality Lab and the Analytical Lab, from both testing and related cleanup (e.g., flammable solvents, acid waste). The Quality Lab generates flammable solvent wastes (D001; primarily isopropanol) from various titrations for updates of materials. The quantities generated are much less than 55 gallons per year. As this waste is generated, or at a minimum daily when the process is active, the wastes are removed from the process and taken outside to the satellite accumulation area for that specific waste stream, which is located in a two-drum, covered poly containment unit that is immediately outside the door from that room/area and immediately adjacent to the building. The Analytical Lab generates various types of acids (D002; e.g., hydrochloric, nitric, sulfuric) from acid digestion analyses, which are combined to form a waste acid stream. As this waste is generated, or at a minimum daily when the process is active, the wastes are taken outside to the satellite accumulation area for that specific waste acid stream, which is located in a two-drum, covered poly containment unit that is immediately outside the door from that room/area and immediately adjacent to the building. Again, the quantities generated are much less than 55 gallons per year. The liner and insulation testing lab conducts small-scale testing of insulation and liner samples for bond strength and integrity. The primary waste stream from this area is F-listed solvent-contaminated rags and trash (F002, F003, F005), which come from cleaning of surfaces prior to bonding and related cleanup. As this waste is generated, or at a minimum daily when the process is active, the wastes

are taken outside to the satellite accumulation area for that specific waste acid stream, which is located in a two-drum, covered poly containment unit that is immediately outside the door from that room/area and immediately adjacent to the building. Again, the quantities generated are much less than 55 gallons per 90-day period. There are three such separate outside satellite areas set up at Building 202, each for a different hazardous waste stream, and each located just outside the door from the area/room where the processes generating the waste are located, as described above (*see Photo # 324 from the EPA inspection report in Attachment C for an example of one of these areas*).



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**REGION III**

**1650 Arch Street**

**Philadelphia, Pennsylvania 19103-2029**

**VIA FEDEX**

**JAN 05 2009**

Rodger Snyder, Plant Manager  
Aerojet Corporation  
7499 Pine Stake Road  
Culpeper, VA 22542

**Re: Notice of Violation**  
Compliance Evaluation Inspection  
August 14, 2007  
EPA ID No. VAD981112618

**Docket No.: R3-09-NOV-RCRA-09**

Dear Mr. Snyder:

On August 14, 2007, the U.S. Environmental Protection Agency, Region III ("EPA") conducted a Compliance Evaluation Inspection ("CEI") of your facility in Rhoadesville, VA. under the federally authorized Commonwealth of Virginia Hazardous Waste Management Regulations ("VAHWMR") and the Resource Conservation and Recovery Act ("RCRA"), as amended, 42 U.S.C. Sections 6901 et seq. The Inspection Report is attached to this letter. Based on the inspection, EPA has determined that Aerojet Corporation (Aerojet or the Facility) has violated regulations under VAHWMR and RCRA. As a result of this determination, EPA is issuing this **Notice of Violation ("NOV")**. The specific violation(s) are:

1. The inspector observed ejected material at the Burn Area on the ground which had not been removed since the last burn in violation of 9VAC 20-60-268 (40 CFR 268.50).
2. The facility failed to date containers stored outside Building 26 (Photo #301) and Building 202 (Photos #324 thru #326) in violation of 9VAC 20-60-262 [40 CFR 262.34(a)(2)]. These areas are not satellite accumulation areas because their outdoor location does not qualify as "at or near the point of generation" as required by 9VAC 20-60-262 [40 CFR 262.34(c)(1)] and thereafter must be managed as 90 day areas.
3. The inspector observed air filters at Building 214 (Photos #222 & #323) that were not in closed containers, labeled, and dated in violation of 9VAC 20-60-262 [40 CFR 262.34(a)].

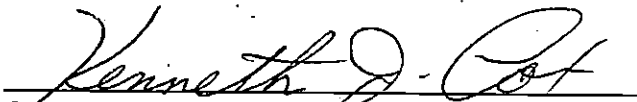
Within twenty (20) calendar days of the receipt of this NOV, please submit a response documenting the measures the facility has taken or is taking to achieve compliance with violation #2 noted above or provide an explanation of facts and circumstances that cause you to believe that EPA's determination of the alleged violations are in error. If the compliance measures identified are planned or are on-going, please provide a schedule for when the compliance measures will be completed. Violations #1 and #3 have been documented as returned to compliance in the inspection report.

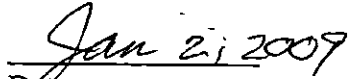
Section 3008(a) of RCRA authorizes EPA to take an enforcement action whenever it is determined that any person has violated, or is in violation, of any requirement of RCRA as amended. Such an action could include a penalty of up to \$32,500 per day of violation. In addition, failure to achieve and maintain compliance with the regulations cited in this Notice of Violation may be treated as a repeated offense and may constitute a "knowing" violation of Federal law.

This Notice of Violation is not intended to address all past violations, nor does it preclude EPA from including any ongoing, including the one cited in this letter, or past violations in any future enforcement action. Response to this NOV shall be addressed to:

Kenneth J. Cox  
Land and Chemicals Division (3LC70)  
U.S. Environmental Protection Agency - Region III  
1650 Arch Street  
Philadelphia, PA 19103

With regard to the Small Business Regulatory Enforcement and Fairness Act (SBREFA), please see the "Information for Small Businesses" memo, enclosed, which might be applicable to your company. This enclosure provides information on contacting the SBREFA Ombudsman to comment on federal enforcement and compliance activities and also provides information on compliance assistance. As noted in the enclosure, any decision to participate in such program or to seek compliance assistance does not relieve you of your obligation to respond in a timely manner to an EPA request or other enforcement action, create any rights or defenses under law, and will not affect EPA's decision to pursue this enforcement action. To preserve your legal rights, you must comply with all rules governing the administrative enforcement process. The Ombudsman and fairness boards do not participate in the resolution of EPA's enforcement action. EPA has not made a determination as to whether or not you [or your company] are covered by the SBREFA.

  
Carol Amend, Associate Director  
Land and Chemicals Division  
Office of Land Enforcement

  
Date

Enclosure

cc: Justin Williams (VADEQ) with Enclosure  
Terry DiFiore (3LC70) w/o Enclosure  
Ken Cox (3LC70) w/o Enclosure

Lillian Andrelczyk  
EPA  
1650 Arch Street - 10th Floor  
3LC70  
Philadelphia, PA 19103



JCL5112682823

SHIP TO: (000) 000-0000

BILL SENDER

**Mr. Rodger Snyder, Plant Manager**  
**Aerojet Corporation**  
**7499 PINE STAKE RD**

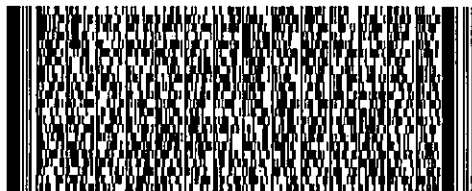
**CULPEPER, VA 22701**

ActWgt: 1.0 LB  
CAD: 7961297/NET8091  
Account#: S \*\*\*\*\*

Delivery Address Bar Code



Ref # Mr. Ken Cox 215 814-3441  
Invoice #  
PO #  
Dept #



TRK# 7962 2726 3350  
0201

**TUE - 06JAN AM**  
**PRIORITY OVERNIGHT**

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**VA-US**  
**RIC**

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
1350 Arch Street  
Philadelphia, Pennsylvania 19103-2029

December 24, 2008

Mr. Justin Williams  
Virginia Department of Environmental Quality  
629 East Main Street  
Richmond, VA 23240-0009

**RE: RCRA Notice of Violation  
Aerojet Corporation  
VAD981112618**

Dear Mr. Williams:

The U.S. Environmental Protection Agency Region III is pursuing the issuance of a Notice of Violation (NOV) to the Aerojet Corporation in Rhoadesville, VA pursuant to the Resource Conservation and Recovery Act (RCRA) as amended by the Hazardous and Solid Waste Amendments (HSWA) of 1984. The NOV will address violations of RCRA Subtitle C.

I appreciate your cooperation in this matter and look forward to your continued efforts toward a successful enforcement program. Should you have any questions regarding this matter, please contact me at (215) 814-5430 or Ken Cox at (215) 814-3441.

Sincerely,

A handwritten signature in cursive script that reads "Carol Amend".

Carol Amend, Associate Director  
Land and Chemicals Division  
Office of Land Enforcement

cc: K. Cox, 3LC70 ✓

**ENFORCEMENT CONFIDENTIAL**

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**Facility Inspection Program**

**701 Mapes Road**

**Fort Meade, Maryland 20755-5350**

**(410)-305-2786**

Date: November 14, 2008

From: George Houghton  
Inspector

To: Samantha Beers  
Director, OECEJ

Re: **AEROJET CORPORATION**  
Intersection of route 621 & 602  
7499 Pine Stake Road  
Rhoadesville, Virginia 22542  
RCRA Identification Number: VAD 981 112 618

On August 14 the subject facility was inspected for compliance with the RCRA regulations. The following items of interest were observed:

1. Ejected material was observed on the ground at the burning grounds (TTU) that resulted from a burn in June 2007. The ejected material should be removed and disposed of properly.
  2. Containers of hazardous waste observed outside the laboratory were not dated. The facility was managing this waste using the satellite rules. The waste was not located at or near the point of generation. These locations included; buildings 26, 5, 214 and 202.
  3. Building 211, alcohol tank, was not labeled as a hazardous waste.
-

**RCRA Compliance Evaluation Inspection**

**AEROJET CORPORATION**

7499 Pine Stake Road  
Culpeper, Virginia 22542

DEC 15 2008

Facility located at:  
Intersection of routes 621 & 602  
7499 Pine Stake Road  
Rhoadesville, Virginia 22542

Telephone Number: 540-854-2000

Date of Inspection: August 14 - 15, 2007

RCRA Identification Number: VAD 981 112 618

Web Address: [www.aerojet.com](http://www.aerojet.com)

SIC Code: 3764

Latitude: 38.1835 N  
Longitude: 77.5514 W

EPA Representative: George H. Houghton  
Environmental Protection Specialist

State Representative: Maria Raney  
Inspector - VADEQ

Facility Representative: Timothy Holden  
Environmental Manager  
540-854-2037

James Berkes  
Senior Environmental Engineer  
540-854-2124

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Rodger Snyder  
Plant Manager  
Director of Operations

## BACKGROUND

At the request of the Waste and Chemical Management Division, EPA Region III, the Fort Meade office of OECEJ inspected Aerojet Corporation located in Rhoadesville, Virginia for compliance with the RCRA regulations. The facility was not notified prior to the inspection. The state agency, VADEQ, was notified at least two weeks prior to the inspection and they were present during the inspection.

## FACILITY DESCRIPTION

Aerojet is wholly owned subsidiary of Gen Corporation. In 2005, the production facilities moved from Gainesville, VA to this location as well as Sacramento, CA and Arkansas. The Rhoadesville location has been in operation since 1989 and consists of about 2500 acres of property, of which, about 150 acres are developed. Employment is around 150.

Aerojet purchased the assets of ARC/Sequa in 2003 and by April 2005 all production had been moved from Gainesville, VA to this and other locations. ARC retained the cleanup responsibilities at Gainesville, which is now in progress.

At this location, Aerojet produces propellant named D5 along with the propellant for the Nulka missile system. In addition, the facility has a R&D group along with scale-up for development of new propellant products. All manufacturing processes are batches where ingredients are mixed in vessels. The basics ingredient for the propellant is HMX (cyclotetramethylene- tetranitramine), a powerful and relatively insensitive nitroamine high explosive. It is manufactured off-site and brought to this location. A second ingredient is AP (Ammonium perchlorate) and finally Aluminum powder. Additional ingredients are then added to the HMX to attain the desired effect. The material is then cast into sleeves, cured by baking milled to its desired shape and placed in the rocket motor housing. Each one of these steps can generate an energetic waste that is destroyed at the burning ground. In addition, these steps can generate a chemical hazardous waste that is stored and shipped off-site for disposal. RDX (Cyclotrimethylenetrinitramine), another energetic waste, is associated with R&D rather than manufacturing.

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According to the facility, each energetic waste generation location has container(s) to receive the waste located outside the production areas. That waste is transferred to the <90 day storage building (area 112), located near the burning grounds, daily. There were no scheduled burns during this inspection. The next burn was tentatively scheduled for September 18, 2007. Their last burn was 6-26-2007. Previous burns were in January and April of 2007.

VADEQ last inspected the facility in February 2007.

## PERMIT STATUS

Aerojet is a large quantity generator of chemical and energetic hazardous waste, storing for less than 90 days. The facility has an RD&D permit, Subpart X, that was issued in 1990 to destroy the energetic waste and propellant contaminated debris. It is a 365 operating day permit and, at the time of this inspection, the facility had operated for 93 days. Aerojet did apply for a new Part B permit on 9/30/2007 and is meeting with VADEQ concerning this permit.

## INSPECTION OBSERVATIONS

Initially, the inspectors presented their credentials to the facility representative. It was also explained that this was a routine inspection lead by EPA. After the introductions, the facility gave a brief description of the manufacturing process and hazardous waste generation. The inspectors then observed the waste accumulation points, storage locations and burning ground, followed by a paperwork review.

A listing of all the storage areas is included (attachment 2). These locations are inspected weekly to ensure the materials are properly stored. Attachment 2 is also an example of the inspection record for each of these locations.

Energetic waste is first accumulated at area 112 and then destroyed at the Thermal Treatment Unit (TTU). The facility burns about 5 times yearly or at 90 day intervals, depending on production. The inspector observed the storage buildings at 112. They are labeled 112-A, 112-B, 112-C and 112 (photographs 305 to 312). In general, all of the containers were labeled, dated and closed. None of the material is liquid. Building A held numerous containers of R & D waste and D5 waste. This waste will be destroyed on site. In Building B and Building C, each container was labeled, dated and closed. These containers were being staged for off site disposal.

Not far from the storage building, is the burn area (photos 313 to 320). The facility has 4 burn pads; labeled TTU-1 through TTU-4. The waste propellant is burned in pans. They were designed and made by ARC and some were used at the Gainesville facility. Each pan resembles a 1000 gallon tank, cut in half, longitudinally. Energetic waste is burned in pans that are lined with inert material. When not in use, each pan is covered to minimize moisture from entering the pan.

The burn area is bermed and two fire breaks surround the entire burn area. Waste ash is collected and shipped off-site as a hazardous waste even though it is not considered a hazardous waste. Prior to 2000 the waste was disposed as a non-hazardous waste stream. Ashland

Environmental is the disposal contractor. If the material burned contains solvent, the residues are shipped off-site as an 'F' listed waste. TTU-1 had 4 covered pans. One of the covers was removed and some ash was observed. Also, on the ground around the pan, some residual ash was observed. TTU-2 is used to destroy R&D waste. Ejected material was observed on the ground and should be removed. The inspector revisited the burn area the next day and observed that the ejected material had been removed. Photo 335 shows the area. Their last burn was in June. TTU-3 is not used for burning at this time. The facility stores some equipment in this area. TTU-4 had 4 useable pans and 2 spare pans. Also observed were 2 cages for burning of metal parts contaminated with propellant (photo 317). This area is also used for R&D waste.

Aerojet keeps track of the amount of energetic waste in storage. They are limited to 7,000 pounds at any one time. The inspector obtained a sample log (attached) for the time period of this inspection. Logs for the individual storage sheds were also obtained and they showed that the amount of waste did not exceed the 7000 pound limit, in total, for all sheds.

During a burn, the facility is required to monitor for various parameters. The facility provided to this inspector monitoring information that resulted from the June 2007 burn and an annual summary. This data is submitted to Region III as part of the RD&D permit. A copy of this data is available from this inspector, upon request. The data included date, time, temperature, quantity, weather projections and actual location weather conditions with air monitoring before and during the burn. Air emission parameters reported include NH<sub>3</sub>-N, HCl, AL, Cr, Pb, CO and total suspended particulates (TSP). In addition, the facility monitors the ground water, storm water and soil around the Thermal Treatment Unit, again as part of the RD&D permit. Soil samples are collected and, in a cursory review, this inspector did not observe any data points that were obviously outside a normal range. The data is available from this inspector upon request.

In addition to the burning grounds and the associated storage area, several generation points were observed for compliance with the waste rules. Building 24, not actually a building but a cluster of storage sheds (photo 300), is used to store waste before disposal off site. At the time of this inspection, only one container of waste was observed in storage. It was properly labeled, dated, closed and stored in one of the sheds. This shed has secondary containment. Their last waste shipment was on July 30, 2007 with the previous shipment on June 17, 2007.

Building 26, a prep building for components, and a paint area, had one container of used solvent, managed as a SAP. It was located in a self storage unit just outside the building (photo 301). The one 55 gallon drum was about 2/3 full, closed, labeled and not leaking. No date was observed on the container label. This container is part of the facility's weekly inspection program. One additional container was located inside the building and it was about 1/2 full of waste. This container is managed using the satellite rules. It was closed, labeled and not leaking.

At Building 26, in a small laboratory room, the inspector observed a 2 gallon container, it was empty (photo 302). The contents of this container are transferred to area 112 as energetic waste. This container is managed using the satellite rules. It was properly managed.

Building 5 is used as a maintenance area and machine shop for component manufacturing. One container held rags contaminated with solvent (photo 304) and was stored outside the building. The waste is generated inside the building then transferred to this container. It is managed as a satellite accumulation point but not under control of the operator, otherwise it was properly managed.

Building 214 is used for 'cut back'. To the facility, this term means using a powered cross cut saw to cut propellant to a desired length. The process is controlled remotely. The resultant dust from the cutting process is drawn into a water baffle tank (photo 321). The fines are caught by a .5 micron filter. Waste water is placed in a drum and managed as a non-hazardous waste (photo 323) and sent off-site for disposal. The filter is disposed as an energetic waste either on site or off-site, depending on the content of the propellant. Any residual on the floor is packaged and transferred to the burning grounds the same day it was generated. In addition, the building has air filters that are changed out periodically. Four used filters, dated April 2007, were observed (photo 22) along with additional used filters (photo 323). According to facility procedures, these filters should be transported to 112 at the end of the shift. The filters are disposed as energetic waste, similar to the .5 micron filters. The inspector revisited the location after the initial observation and the filters had been removed. Photo 334 shows those filters at area 112, the next day.

Building 202 is the R&D and QC laboratory; the inspector observed a number of containers, all managed using the satellite rules. All the containers observed in this area were labeled as a hazardous waste, closed not dated and not leaking. Waste observed in the lab space, was either stored in hoods or adjacent to the equipment generating the waste (photos 328 & 329). These containers are emptied into the appropriate drum located outside the laboratory building, on an as needed basis. In addition, three storage enclosures were observed outside the laboratory building. All are managed as SAPs and none of the containers were dated. One enclosure held mixed acidic waste and solvent waste in a separate container (photo 324). Another group held energetic waste (hot trash) in three separate containers (photo 327). The contents of these three containers are transferred to 112 at the end of each day. The third enclosure was labeled 'flammable' (photo 325) and held a number of smaller containers (photo 326). Each of the containers was labeled for content. Based on the labels, not all appeared to be hazardous when disposed. None were labeled as a hazardous waste or dated. The containers that appeared to be hazardous were labeled as: lead paste waste, KOH, and Silver Nitrate. The exact reason why this material was stored in this manner was not determined. Reportedly, this cabinet is checked

weekly (attachment 1).

Building 208 held x-ray equipment that uses wet chemistry to develop the film. As a result, a spent silver fixer waste is generated. (Photo 332) The equipment recovers the silver through an electrolytic process and the recovered silver is sold. After recovery, water is processed by a distillation unit. The resultant sludge is shipped off site as hazardous waste and the distilled water is captured and shipped off site as a non-hazardous waste. No RCRA issues were observed at this location.

Building 211 houses alcohol recovery equipment. HMX arrives in a water/alcohol solution. In order to be useful, as an ingredient by Aerojet, the water/alcohol is removed. In a distillation process, the mixture is captured in a condensate tank (photo 333). The condensate is not reclaimed and is stored in this tank only during the reclamation process. The tank is not labeled as a hazardous waste. At the end of the process, the water/alcohol mixtures is drummed and stored at building 24. It is shipped off site as a hazardous waste through the facility contactor. This equipment was not in operation during this inspection and no waste was observed.

Aerojet does not typically test its waste for disposal purposes. Given that it may be explosive that is probably a good idea. The facility does test the ingredients used in the product to make sure it meets specifications. They use this knowledge to determine if the material is a hazardous waste or not. They will test waste to ensure the waste is/not a hazardous waste. These tests are for non-energetic waste.

Manifests were reviewed and they appeared to be complete for the information provided on the manifests. LDRs were attached. Sample copies are included with this report for your information. The ash residue for energetic material that has a solvent component is shipped offsite as 'F' listed waste (see manifest dated 5/29/2007). Ash that resulted from energetic material that did not contain either solvent or metals is shipped offsite as a RCRA regulated waste. Currently the waste disposal contractor is Ashland Chemical.

Training is accomplished monthly in a classroom setting. The facility also has monthly safety meetings.

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The contingency plan was not reviewed in any detail since the facility has a permit and it was reviewed during that process. The facility has also applied for a new permit and the contingency plan is part of the submittal.

VOC emissions under RCRA did not appear to be an issue at this facility. The facility does use some solvent and they have a small vapor degreaser that uses a chlorinated solvent

(photo 303). The inspector observed the unit. Upon generation, the waste is placed in DOT drums for shipment offsite disposal. Other areas had solvent rags; they are kept in closed containers. Some of the energetic materials have solvents. This material is typically destroyed at the burning grounds unless metal is part of the formulation. The ash residue for solvent energetic material is shipped offsite as containing 'F' listed waste (see manifest dated (5/29/2007)).

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## ATTACHMENTS

1. Photographs
  2. Checklists
  3. Map of the Orange facility
  4. Attachment 1: Weekly inspection records
  5. Energetic summary log
  6. Energetic/propellant storage log by shed
  7. Burn record for 6/26/2007
  8. Training plan
  9. Overheads for Environmental training
  - 10.SPCC Training Program
  - 11.Incident list
  - 12.Sample manifests
  - 13.VADEQ inspection reports dated: June 14, 2007 and February 26, 2007
  - 14.Biennial report for CY 2005 (available upon request from the inspector)
  - 15.Quarterly air monitoring report (available upon request from the inspector)
  - 16.Annual summary Air monitoring report (available upon request from the inspector)
- 
- 17.Soil, water and well data (available upon request from the inspector)

# **AEROJET CORPORATION**

Intersection of route 621 & 602

7499 Pine Stake Road

Rhoadesville, Virginia 22542

RCRA Identification Number: VAD 981 112 618

G. Houghton

298



Universal waste observed in one of the storage sheds at building 24. This waste was managed properly.

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RCRA Identification Number: VAD 981 112 618

G. Houghton

299



This is the only container of hazardous waste observed at building 24. The container was labeled, dated and closed. No leak was observed. The last waste shipment was on July 30, 2007.

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300



Overview of the storage sheds at building 24; most of the material stored at this location is useable. Minimal amount of waste was observed during this inspection.

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301



This storage enclosure was observed just outside building 26. The container was labeled and closed but not dated. It is managed as a satellite container. The waste is generated inside the building and stored in this container.

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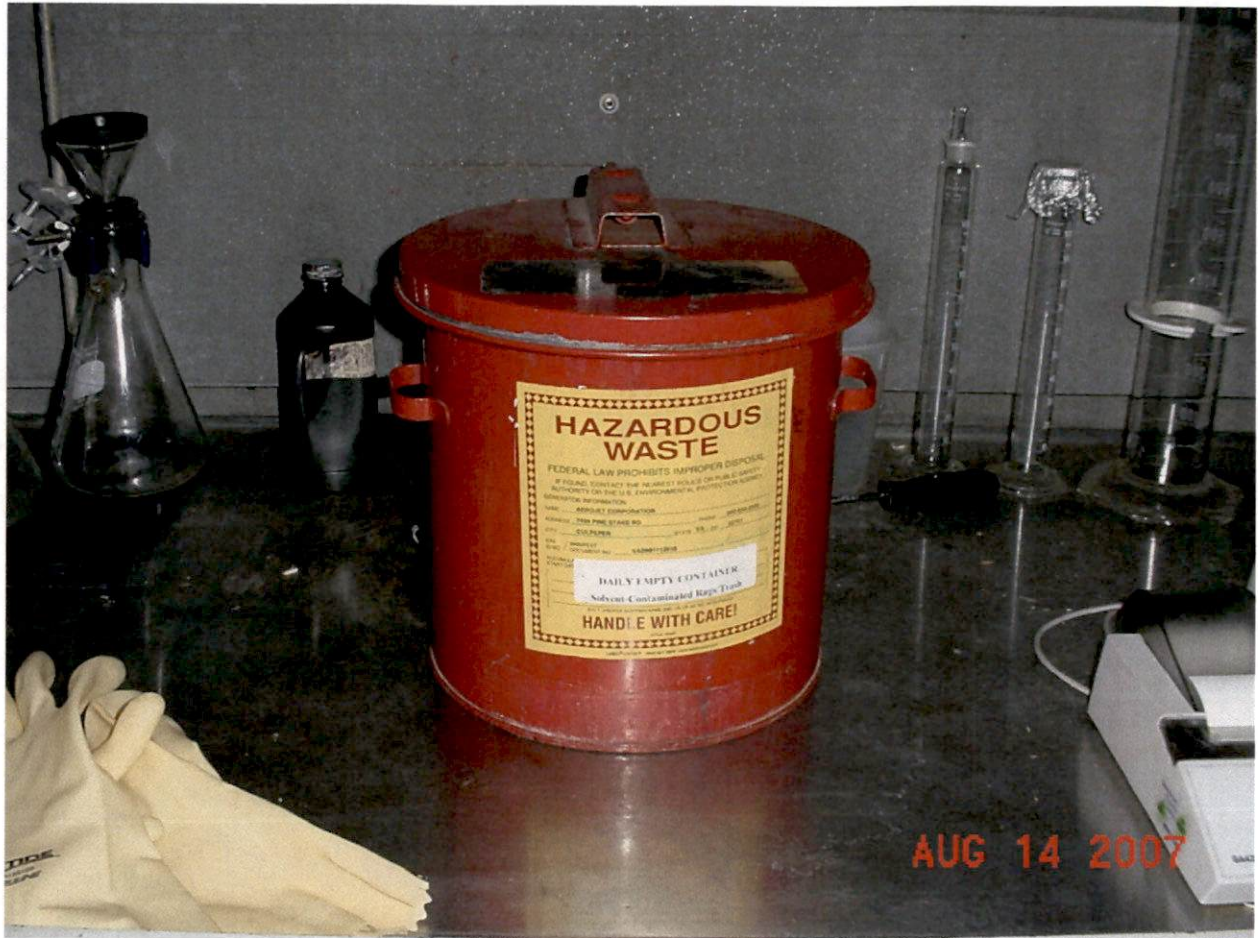
7499 Pine Stake Road

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RCRA Identification Number: VAD 981 112 618

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302



This container was also located at building 26 in a small laboratory. This satellite container was properly managed. It held energetic waste. Another container, 1 quart, held waste solder. It was also properly managed.

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303



This small vapor degreaser uses 1-1 trichloroethylene. It was not being used at the time of this inspection. No waste was observed in this area.

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304



This storage enclosure is located outside building 5. The container held solvent contaminated rags. It is managed as a SAP. The waste is generated in the building and brought here. The container was labeled and closed but not dated. The remaining container held non-RCRA regulated waste.

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305



Building 112B, this is energetic waste that will be destroyed on site at the burning grounds. This is <90 day storage. All the containers are labeled, closed and dated.

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306



Another view inside of 112B, showing the other side of the building. No RCRA issues were observed.

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307



Building 112C, this waste is shipped off-site for disposal. The waste has RCRA metals and does not lend itself for onsite disposal.

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308



Building 112A, these containers hold R&D waste and will be disposed on-site. No RCRA issues were observed.

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309



Waste in this building has been packaged and labeled for off site destruction. No RCRA issues were observed.

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310



The fiber drums will be shipped off-site for disposal while the contents of the remaining drums will be burned on site. No RCRA issues were observed,

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311



View of the storage sheds at 112. 112C is on the right while 112 is in the background center and 112A is in the background left.

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312



Additional view of the storage buildings at 112, the building in the center is 112B and on the left is 112A.

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313



View of burn pan 4 located at TT1, note, there is some residual ash in the pan. The last burn was on 6-26-2007.

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314



This is an example of ejected material found in Burn area TT1. A number of examples of ejected material were observed in the area and they should be removed.

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315



Overview of the 4 burn pans located at TT1.

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316



This is view of TT3, it has never been used.

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317



Pan 2 located at TT4. The cage is used to burn metal parts that have been contaminated with energetic waste.

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318



This is an overview of TT4. The two pans in the foreground are not used. The 4 pans in the background are used.

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319



TT2-pan 3, note the ash on the ground. This ash should be removed and stored properly.

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320



View inside pan #3, it shows some ash remaining from the June burn.

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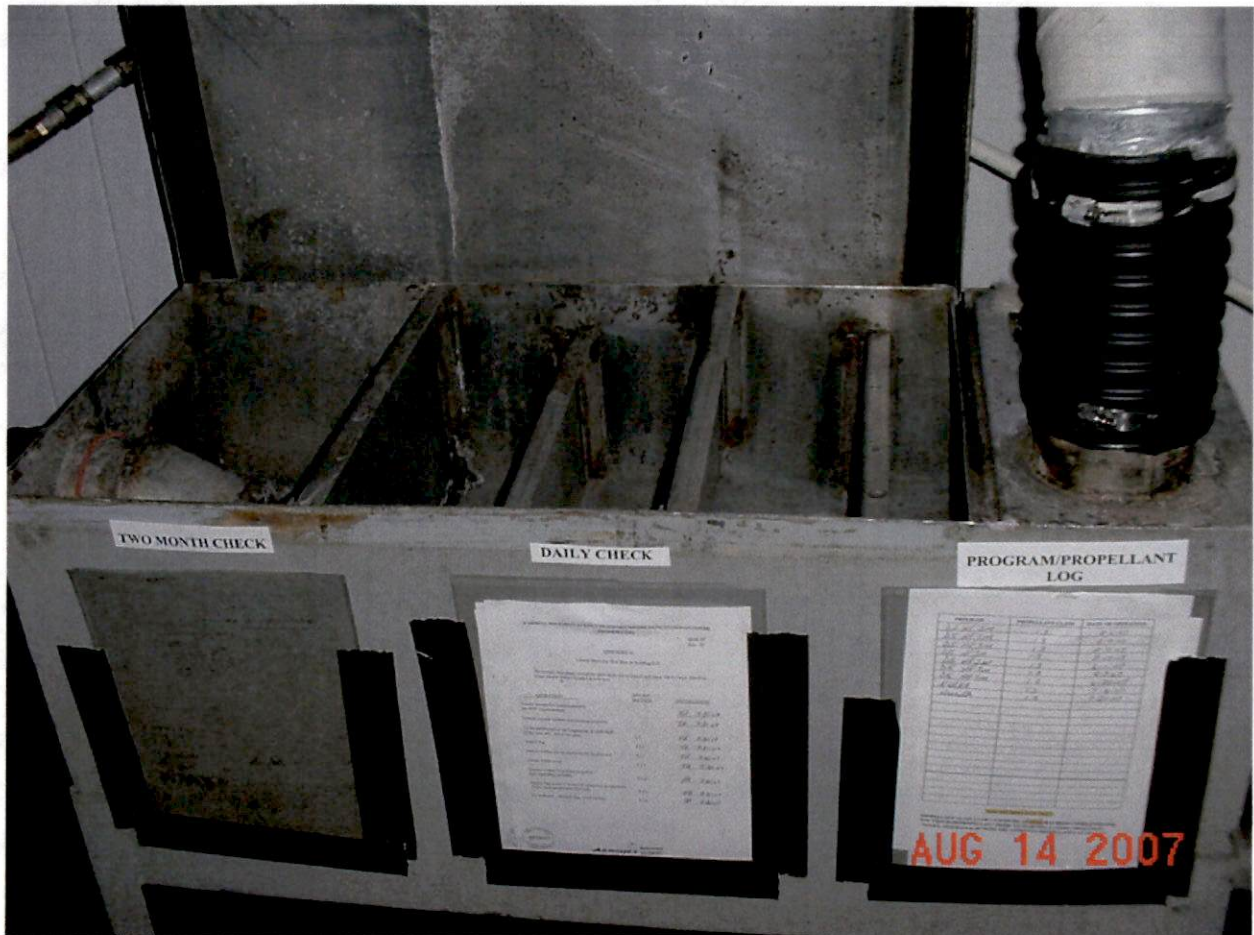
7499 Pine Stake Road

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321



Building 214, this device is a series of baffles that captures energetic waste from a cut saw. The tank is filled with water.

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322



Building 214 cut back, these air filters are use in the bulding and are changed on a routine basis. These filters should be taken to 112 immediately after generation. They may contain some energetic material. The filters were dated April 28, 2007.

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323



Additional contaminated filters observed in building 214

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324



Building 202, laboratory, this shelter held one container of waste. It s managed as an SAP. The container was labeled and closed but not dated. It held mixed acids. The waste is generated inside and brought here for accumulation.

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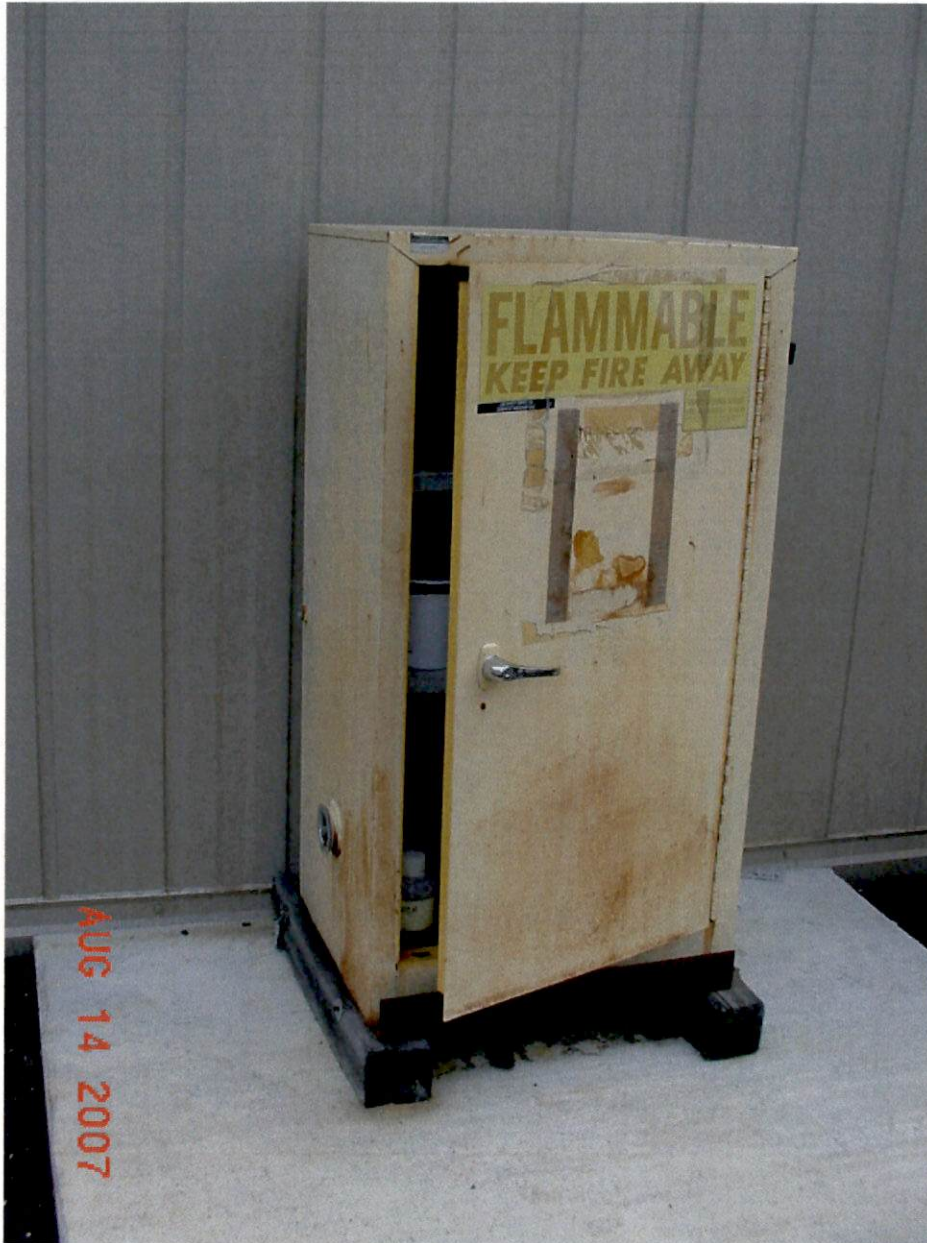
7499 Pine Stake Road

Rhoadesville, Virginia 22542

RCRA Identification Number: VAD 981 112 618

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325



Building 202, laboratory, this flammable cabinet held numerous containers of waste. Not all of the waste was hazardous. Each container was labeled for content but was not labeled as a hazardous or dated. Each container was not leaking and was closed. This waste is generated in the lab and brought to this cabinet for accumulation.

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326



Building 202, laboratory, this is the same cabinet as photo 325. It shows the contents of the cabinet. Based on the labeling some of the waste stored will be hazardous when disposed.

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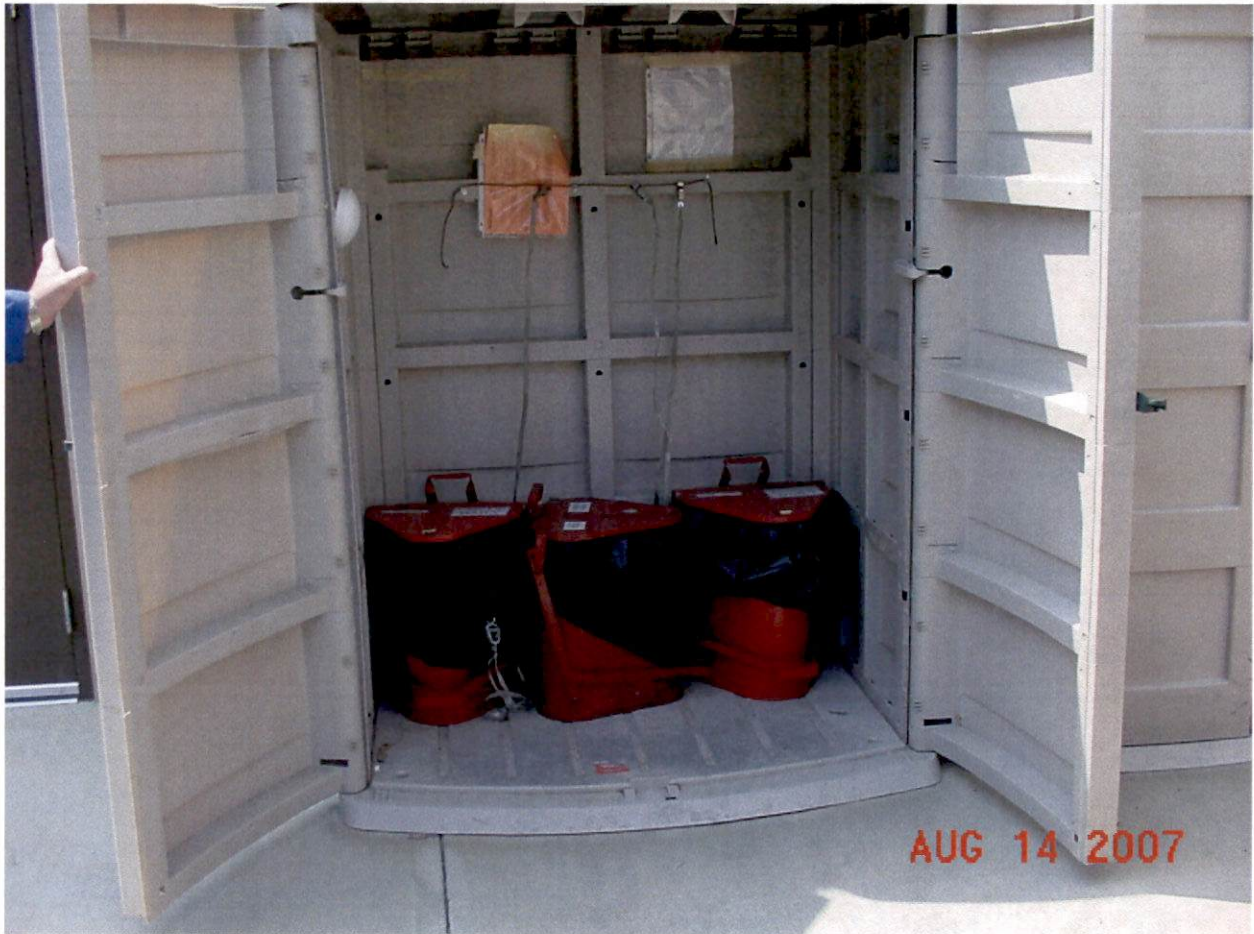
7499 Pine Stake Road

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327



Building 202, laboratory, these three containers held energetic waste. Any waste in these cans is taken to 112 for storage at end of the shift.

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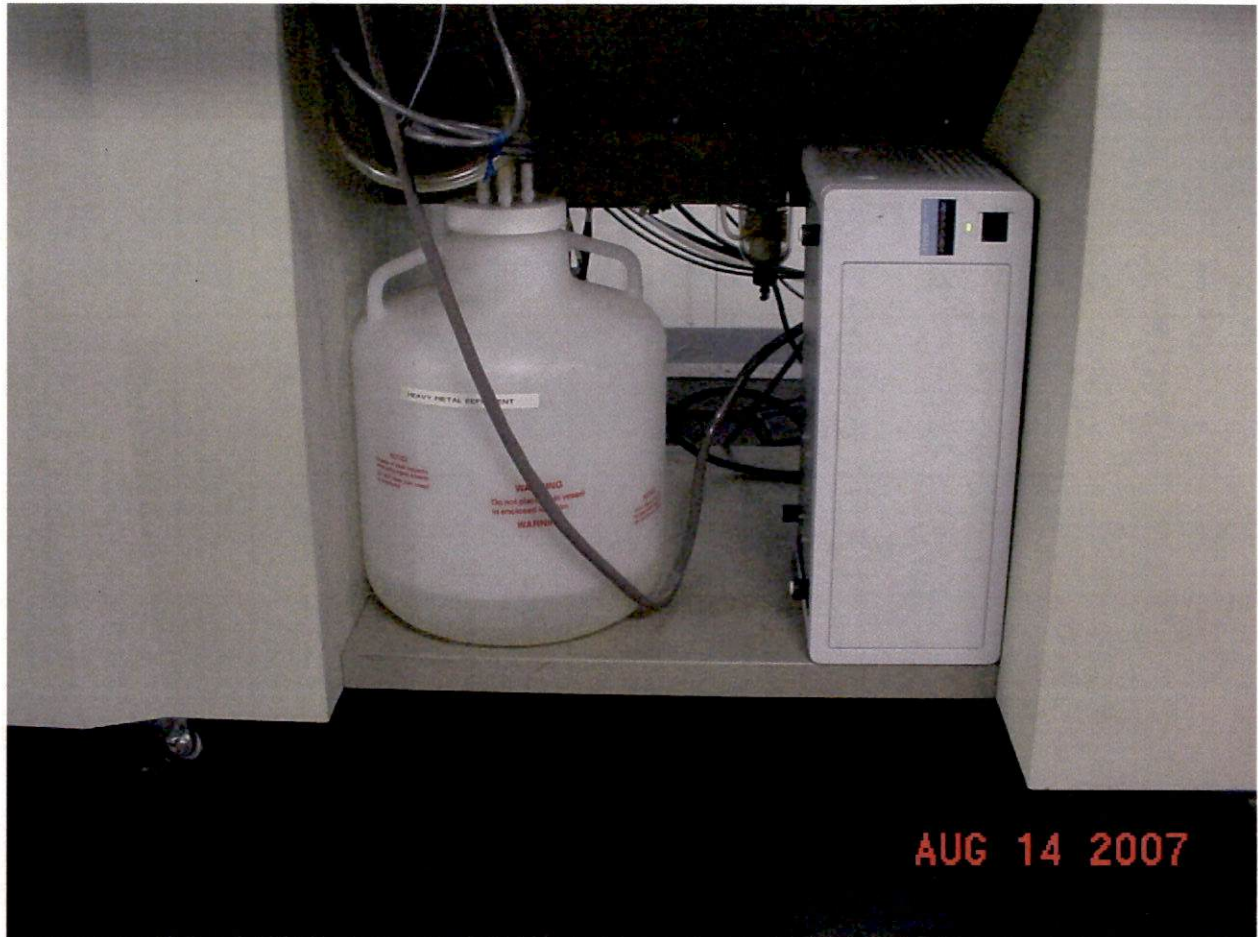
7499 Pine Stake Road

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328



Building 202, laboratory, this 5 gallon container held ICP waste. It is manage as a SAP and was labeled for content and closed. The waste is eventually emptied into the mixed acid waste container depicted in photo 324.

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329



Building 202, laboratory, these containers are being accumulated using the satellite rule. They were being properly managed. They are emptied nightly in containers outside the building.

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332



Building 202, laboratory, the following day the inspector revisited the flammable cabinet. It has now been relabeled and the potentially hazardous waste has been removed. The remaining waste was not deemed to be a hazardous waste when disposed.

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333



Building 208, this is x-ray waste area. The facility uses a still to reduce the waste fixer to a sludge that is disposed off-site as a hazardous waste. It is captured in a 55 gallon container. The recovered water is also captured and shipped off site as a non-hazardous waste. Under the equipment is a 5 gallon bucket containing elemental silver. It was labeled and closed. This area is managed using satellite rules.

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334



Building 207, this HMX arrives with a solution of alcohol and water. The liquid must be removed before it is used. Through a condenser, the liquid is removed and placed in this tank. The tank is only used while condensing the liquid and is not used for storage.

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335



These bags contain the air filters in the cut back area. As can be seen they are in storage at building 112, enclosed and labeled.

This checklist is intended solely to assist inspectors in structuring an inspection and to help them ensure that common regulatory issues are not overlooked. It is not necessarily intended to represent an accurate record of the inspector's findings or observations. Notations and other comments on the checklist are not always to be viewed as direct observations by the inspector or actual fact, but may instead reflect claims by facility personnel or tentative responses which require further investigation for confirmation.

**EPA TSD FACILITY CHECKLIST**

8-14-07

(Does not apply to Universal Waste Handlers)

Name of Facility: AEROJET Corp

Address of Facility: 7499 Pine Stake Rd  
Rhodesville, VA 22542

EPA I.D. Number: VAD 981 112 618

SIC CODE: -----

Name/Title of Facility Representative: Timothy Holder

James Berks  
540/857/2000

**I. General**

1. Does the facility generate hazardous waste? yes no

(if yes, complete generator checklist)

2. Does the facility manage (i.e. treat, store or dispose) any hazardous waste that is:

a. generated on-site? yes no

b. generated off-site at facility(s) having different ownership? yes no

c. generated off-site by facility(s) having common ownership? yes no

If b. or c. are yes, list (or attach) the names and

addresses of the facility(s) which transport its waste to the subject TSD:

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3. Does the facility perform the following on-site:

- a. storage of hazardous waste?    yes    no < 90 days only
- b. treatment of hazardous waste?    ☒ yes    no - Thermal Subpart X
- c. disposal of hazardous waste?    yes    ☒ no

4. Is the facility subject to any exclusions for its hazardous waste?    yes    ☒ no

If yes, list the waste and the basis for exclusion:

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5. Does the facility contemplate any changes in its operation insofar as the management of hazardous waste is concerned?  
yes    ☒ no

If yes, describe: \_\_\_\_\_

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6. Does the facility transport hazardous waste off-site for further management? yes no

If yes, list (or attach) the names and addresses of the facility(s) to which such waste is shipped and answer the questions pertaining to manifests and pre-transport requirements on the generator checklist and attach to this checklist.

7. Has the facility submitted:

a. Part A permit application? yes no

If yes, approximately when? \_\_\_\_\_

b. Part B permit application? yes no

If yes, approximately when? See report

## II. General Facility Standards

### 265.13(a)(1)

1. Has the facility obtained a detailed chemical and physical analysis of a representative sample of each waste it receives prior to its treatment, storage or disposal? yes no  
*thru knowledge of mfg process*

### 265.13(a)(3)

2. Is the analysis repeated as necessary to ensure that it is accurate and up to date? yes no

### 265.13(a)(4)

3. If the facility receives off-site shipments of hazardous waste, does it adequately inspect and, if necessary, analyze each shipment to determine whether it matches the identity specified on the accompanying manifest? yes no N/A

If no, explain: \_\_\_\_\_

265.13(b)

4. Has the facility developed a written waste analysis plan and, if so, is the plan kept at the facility?      yes      no

If no, explain: See Report -

PLAN part of the existing ROD permit + New  
Part B Application - Analysis plan not reviewed

If yes, does the waste analysis plan contain the following:

a. List of wastes to be sampled?      yes      no

b. Location of sampling?      yes      no

265.13(b)(1)

c. List of parameters and why they were selected?  
yes      no

265.13(b)(2)

d. Test methods?      yes      no

265.13(b)(3)

e. Sampling method to ensure collection of a representative sample?      yes      no

265.13(b)(4)

f. Frequency of sampling?      yes      no

265.13(b)(5)

g. Waste analyses that off-site generators have agreed to supply?      yes      no      N/A

265.13(b)(6)

h. Additional waste analysis requirements associated with specific waste management methods?      yes      no      N/A

**265.13(b)(6) & 268.7**

i. Required updates for LDR (see LDR checklists for more details)?      yes      no

**261.24**

j. Replacement of EP Tox with TCLP?      yes      no      N/A

**265.13(b)(7)**

k. The testing of contents/residues from LDR exempted surface impoundments (268.4(a)) and the procedures for the annual removal of those residues which do not meet applicable treatment standards?      yes      no      N/A

**265.13(c)**

l. Procedures that will be used by off-site facilities to inspect and, if necessary, sample and analyze each shipment of hazardous waste to ensure that it matches its identity on the accompanying manifest?  
yes      no      N/A.

**The inspector should obtain a copy of the waste analysis plan if any problems are found.**

**265.13(b)**

5. Does it appear that the facility follows its waste analysis plan?      yes      no

If no, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**265.14(b)(1)**

6. Does the facility have a 24 hour surveillance system which continually monitors and controls entry to the active portion of the facility?      yes      no

If no:

**265.14(b)(2)(i)**

a. Does the facility have an artificial or natural boundary which completely surrounds the active portion of the facility? ☒ yes no

265.14(b)(2)(ii)

b. Does the facility have a means to control entry at all times, i.e., attendants, locked entrances, gates,

television monitors, controlled roadway access, etc.

☒ yes no

265.14(c)

7. Does the facility have a restricted access sign posted at each entrance to the active portion of the facility, i.e., "Danger - Unauthorized Personnel Keep Out"? ☒ yes no

265.15(b)(1) & (2)

8. Does the facility have a written inspection schedule and, if so, is it kept at the facility? ☒ yes no

If no, describe: \_\_\_\_\_

If yes, does it address inspecting:

265.15(b)(1)

a. Monitoring equipment? ☒ yes no

b. Safety and emergency equipment? ☒ yes no

c. Security devices? ☒ yes no

d. Operating and structural equipment? ☒ yes no

265.15(b)(4)

e. Loading/unloading areas daily when in use or other areas subject to spills? yes no N/A

265.15(b)(3)

9. Does the inspection schedule identify the types of problems

which are to be looked for during the inspection?

☒ yes ☐ no

**265.15(d)**

10. Does the facility record inspection observations in an inspection log? ☒ yes ☐ no

If yes, does the log include:

a. Date and time of inspection? ☒ yes ☐ no

b. Name of the inspector? ☒ yes ☐ no

c. Notation of observations? ☒ yes ☐ no

d. Date and nature of any repairs or remedial actions?

☒ yes ☐ no

**The inspector should obtain copies of the inspection schedule or the inspection logs if any problems are found.**

11. Are the inspection records kept for at least 3 years from the date of the inspection? ☒ yes ☐ no

**265.15(c)**

12. Are there any malfunctions, deficiencies or equipment deterioration problems uncovered during a prior inspection that the facility has failed to correct? ☒ yes ☐ no

If yes, describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

13. Does the facility maintain personnel training records?

☒ yes ☐ no

If yes, do these records include: - See generator  
checklist

**265.16(d)(1)**

a. Job title for each position related to hazardous waste management and the employee filling each job?

yes      no

**265.16(d)(2)**

b. A written job description for each position?

yes      no

**265.16(d)(3)**

c. A written description of the type and amount of training that will be given to each person? yes      no

**265.16(d)(4)**

d. Records that document that the training or job experience required by facility personnel to effectively respond to emergencies and otherwise manage hazardous waste in a proper manner has been successfully completed?

yes      no

**265.16(b)**

14. Have facility personnel successfully completed the required training or job experience within six months after occupying the position? yes      no

**265.16(c)**

15. Do facility personnel take part in an annual review of the initial training requirements and update them as necessary?

yes      no

**Answer the following questions if the facility manages either ignitable or reactive waste.**

**265.17(a)**

16. Are ignitable or reactive wastes separated and protected from sources of ignition or reaction? yes      no

17. Are there "No Smoking" signs posted wherever a hazard from ignitable or reactive waste exists? yes      no

**265.17(b)**

18. Are ignitable or reactive wastes managed in what appears to be a safe manner (i.e. no generation of extreme heat, pressure, fire or explosion, violent reactions, toxic fumes, etc. or damage to devices holding such wastes)? ☒ yes ☐ no

If no, describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Answer the following question if the facility manages incompatible wastes.

**265.17(b)**

19. Is the mixture or commingling of incompatible wastes, or incompatible wastes and materials conducted in a safe manner? ☒ yes ☐ no

If no, describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### **III. Preparedness and Prevention**

1. Does the facility have the following equipment:

**265.32(a)**

a. Internal communications or alarm system? ☒ yes ☐ no

**265.32(b)**

b. Telephone or hand-held two-way radio? ☒ yes ☐ no

**265.32(c)**

c. Portable fire extinguishers or other fire control equipment, spill control equipment and decontamination equipment? ☒ yes ☐ no

**265.32(d)**

d. Adequate volume of water? ☒ yes ☐ no.

265.33

2. Does the facility test and maintain the above equipment to assure its proper operation? ☒ yes ☐ no

265.35

3. Is there sufficient aisle space to allow the unobstructed movement of personnel and equipment to areas where hazardous waste are located in the event of an emergency? ☒ yes ☐ no

265.37(a)(1)

4. Has the facility made arrangements with local authorities to familiarize them with the layout of the facility and the nature/hazards of the hazardous waste handled at the facility? ☒ yes ☐ no

#### iv. Contingency Plan

*See generator  
checklist*

265.51(a) & 265.53(a)

1. Has the facility prepared a contingency plan and is it maintained at the facility? ☐ yes ☐ no

If yes, does it contain the following:

265.52(a)

a. Description of the actions that are to be taken in case of an emergency (all potential types of emergencies should be identified)? ☐ yes ☐ no

265.52(c)

b. Description of arrangements made with local authorities? ☐ yes ☐ no

265.52(d)

c. Current list of emergency coordinators' names, addresses and phone numbers (office and home)?  
☐ yes ☐ no

265.52(e)

d. List of all emergency equipment at the facility, including locations, descriptions and relevant capabilities?    yes    no

**265.52(f)**

e. evacuation plan for facility personnel?    yes    no

**The inspector should obtain a copy of the facility's contingency plan if any problems are found.**

**265.53(b)**

2. Were copies of the contingency plan submitted to local authorities that may provide emergency services?    yes    no

3. Has the facility's contingency plan ever failed in an emergency?    yes    no

If yes:

**265.54(b)**

a. Was the contingency plan immediately amended?  
yes    no

**265.54(c), (d) & (e)**

4. Was the contingency plan amended when either the facility or its operations, list of emergency coordinators or list of emergency equipment had changed?    yes    no    N/A

If no, describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**265.56(j)**

5. If the contingency plan is implemented, does the facility record the time, date and details of the incident in its operating log and submit a written report of the incident to the Regional Administrator or appropriate state agency within 15 days?    yes    no    N/A

- See gen checklist -

## **v. Manifest System, Recordkeeping and Reporting**

Answer the following questions if the facility receives hazardous waste from off-site.

### **265.71(a)(1)**

1. Does the facility sign and date each copy of the manifest accompanying a hazardous waste shipment?      yes      no

### **265.71(a)(2)**

2. Does the facility note any significant discrepancies in the manifest (significant discrepancies in quantity are variations greater than 10 % for bulk waste or any variation in piece count for batch waste)?      yes      no

### **265.71(a)(4)**

3. Does the facility send a copy of the manifest back to the generator within 30 days after the waste was received?  
yes      no

### **265.71(a)(5)**

4. Does the facility retain a copy of the manifest for at least 3 years?      yes      no

### **265.72(b)**

5. Does the facility attempt to reconcile any significant discrepancies in the manifest when they are discovered?  
yes      no      N/A

6. If the discrepancy is not resolved within 15 days after receiving the waste, does the facility notify the Regional Administrator in writing?      yes      no      N/A

### **265.73(a)**

7. Does the facility keep a written operating record?  
yes      no

If yes, does it contain the following:

#### **265.73(b)(1)**

a. Description and quantity of each hazardous waste received?      yes      no

b. Method(s) and date(s) of treatment, storage or disposal?    yes    no

**265.73(b)(2)**

c. Location of each hazardous waste within the facility and the quantity at each location?    yes    no

**265.73(b)(3)**

d. Records and results of waste analysis?    yes    no

**265.73(b)(4)**

e. Details of all incidents that require implementing the contingency plan?    yes    no    N/A

**265.73(b)(5)**

f. Records and results of inspections?    yes    no

**265.73(b)(6)**

g. Monitoring, testing or analytical data and corrective action where required?    yes    no

**265.73(b)(7)**

h. Closure/post-closure cost estimates?  
yes    no    N/A

**265.73(b)(8)**

i. Records of quantities and dates of placement of hazardous waste into land disposal units?  
yes    no    N/A

**265.73(b)(9) - (14)**

j. Copies of notifications, certifications and demonstrations, if applicable, required by the LDR program?    yes    no    N/A

**265.75**

8. Does the facility prepare, and submit to the Regional Administrator by March 1 of each even numbered year, a biennial report?    yes    no

obtained copy ~~attached~~  
upon request.  
from inspector

If yes, does it contain the following:

**265.75(a)**

a. EPA I.D. number, name and address of the facility?

☒ yes      no

265.75(b)

b. Calendar year covered by the report? ☒ yes      no

265.75(c)

c. EPA I.D. number of each generator from which the facility received a hazardous waste shipment during the year? ☒ yes      no      N/A

265.75(d)

d. Description and the quantity of each hazardous waste received during the year (for off-site facilities, this information must be listed by EPA I.D. number of each generator)? ☒ yes      no

265.75(e)

e. Method of treatment, storage or disposal of each hazardous waste? ☒ yes      no

265.75(f)

f. Groundwater monitoring data?      yes      no      ☒ N/A

265.75(g)

g. Most recent closure/post-closure cost estimates? ☒ yes      no      N/A

265.76

9. Has the facility received any hazardous waste from an off-site generator without an accompanying manifest?      yes      ☒ no

If yes:

a. Did the facility prepare and submit to the Regional Administrator, within 15 days after receiving the waste, an unmanifested waste report?      yes      no

## VI. Ground Water Monitoring *NO LAND DISPOSAL UNITS*

Answer the following questions if the facility manages hazardous waste in a land disposal unit.

### 265.90(a)

1. Has the facility installed a groundwater monitoring system?

yes      no

If no, describe why: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

If yes, answer the following:

2. Is the facility presently conducting (a) detection phase groundwater monitoring or (b) assessment phase groundwater monitoring (circle appropriate one)?

### 265.91(a)(1)

3. Is there at least one monitoring well installed hydraulically upgradient of the waste management area?

yes      no

### 265.91(a)(2)

4. Is there at least three monitoring wells installed hydraulically downgradient of the waste management area?

yes      no

### 265.91(a)(2)

5. Do monitoring wells intercept the water within the uppermost aquifer underlying the facility?

yes      no      unsure

### 265.91(c)

6. Are all monitoring wells cased, screened, packed or sealed in a manner that enables uncontaminated and representative samples to be collected from the uppermost aquifer?

yes    no    unsure

If no, explain: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**265.92(a)**

7. Has the facility developed a ground water sampling and analysis plan and is the plan kept at the facility?

yes    no

If no, explain: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

If yes, does it include procedures and techniques for:

**265.92(a)(1)**

a. Sample collection?    yes    no

**265.92(a)(2)**

b. Sample preservation and shipment?    yes    no

**265.92(a)(3)**

c. Analytical procedures?    yes    no

**265.92(a)(4)**

d. Chain of custody control?    yes    no

**265.92(a)**

8. Does the facility appear to follow its sampling and analysis plan?    yes    no

If no, explain: \_\_\_\_\_

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9. Does the facility's ground water monitoring program include:

**265.92(b)(1)**

a. Measuring concentrations of "ground water suitability" parameters quarterly during the first year for each well?  
yes      no

**265.92(b)(2) & (d)(1)**

b. Measuring concentrations of "ground water quality" parameters quarterly during the first year and at least annually afterwards for each well?      yes      no

**265.92(b)(3) & (c)(2) & (d)(2)**

c. Measuring concentrations (at least four replicate samples) of "indicators of ground water contamination" parameters quarterly during the first year and at least semi-annually afterwards for each well?      yes      no

**265.92(e)**

d. Determining elevation of the ground water surface at each monitoring well each time a sample is collected?  
yes      no

**265.93(a)**

10. Has the facility prepared an outline of a groundwater quality assessment program?      yes      no      N/A

11. Has the facility's ground water monitoring program been certified by a qualified geologist, hydrologist or geotechnical engineer?      yes      no

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**VII. Closure/Post-Closure/Financial Assurance**

**265.112(a)**

1. Does the facility have a written closure plan?

☒ yes    no

If yes, answer the following:

a. Has the plan been approved by the State or EPA?

☒ yes    no

**265.112(c)**

b. Has the closure plan been amended as necessary in order to keep it up-to-date?    yes    no

*Facility opinion the current plan is Adequate*

**265.142(a)**

c. Is there a detailed and up-to-date written estimate of closure cost?    ☒ yes    no

**265.142(d)**

d. Is the latest closure cost estimate kept at the facility?    ☒ yes    no

**265.118(a)**

2. Does the facility have a written post-closure plan?

☒ yes    no    N/A

If yes, answer the following:

a. Has the plan been approved by the State or EPA?

☒ yes    no

**265.118(d)**

b. Has the post-closure plan been amended as necessary in order to keep it up-to-date?    ☒ yes    no

**265.144(a)**

c. Is there a detailed and up-to-date written estimate of post-closure cost?    ☒ yes    no

265.144(d)

d. Is the latest post-closure cost estimate kept at the facility? ☒ yes    no

265.143 & 265.145

3. Does the facility have a means to satisfy its financial assurance requirements? ☒ yes    no

If yes:

a. What financial mechanisms are used?

Letter of Credit  
\_\_\_\_\_  
\_\_\_\_\_

b. Does the amount equal or exceed the estimated cost of closure (and post-closure if necessary)?    yes    no

*presumed*

Complete only the following sections that apply to the facility. If the facility uses containers, tanks or surface impoundments for the storage or treatment of hazardous waste the inspector will need to complete the appropriate sections of the Air Emission Standards Checklist (40 CFR Subpart CC). (Effective Date - June 6, 1996)

### VIII. Containers - S E E Generator checklist

#### 265.171

1. Are container(s) in good condition?      yes      no

If no, explain: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### 265.172

2. Are container(s) made of or lined with materials which will not react with or be incompatible with the waste they are storing?      yes      no

#### 265.173(a)

3. Are container(s) kept closed?      yes      no

#### 265.173(b)

4. Are container(s) opened, handled or stored in a manner which may rupture the container or cause it to leak?  
yes      no

If yes, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### 265.171

5. Are any container(s) leaking?      yes      no

If yes, describe: \_\_\_\_\_

**265.174**

6. Are container storage area(s) inspected at least weekly and is an adequate inspection record/log maintained?      yes      no

If no, explain: \_\_\_\_\_

**265.176**

7. Are container(s) holding ignitable or reactive waste located at least 15 meters (50 feet) from the facility's property line?      yes      no      N/A

8. Are incompatible wastes placed in the same container(s)?  
yes      no

If yes:

**265.177(a) & 265.17(b)**

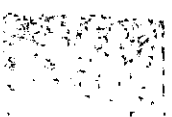
a. Is there any evidence that conditions of extreme heat or pressure, fire or explosion, violent reactions or toxic emissions occurred?      yes      no

If yes, describe: \_\_\_\_\_

**265.177(c)**

9. Are container(s) holding incompatible hazardous waste properly separated or protected from one another while in storage?      yes      no      N/A

If no, explain: \_\_\_\_\_



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**IX. Tanks** *NO H.W. TANKS AT this location*

1. Which of the following describes the type of tank(s) employed at this facility (circle the appropriate one)?

- a. Indoor - not on impermeable floor
- b. Indoor - on impermeable floor
- c. Outdoor - above ground
- d. Outdoor - in ground
- e. Outdoor - underground

**265.191**

2. Does the tank(s) appear to be in good condition?

yes    no    can't tell

If no, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**265.191**

3. Is the tank(s) leaking?    yes    no    can't tell

If yes, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**265.193**

4. Is the tank(s) provided with an effective secondary containment system?    yes    no

If yes, describe: \_\_\_\_\_  
\_\_\_\_\_

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**265.191(a)**

If no, does the facility have a written assessment reviewed and certified by an independent, qualified, registered professional engineer that attests to the tank(s)'s structural integrity?      yes      no

**265.191(b)**

5. Was a leak test performed on the tank(s)?      yes      no

If yes, provide date of most recent test: \_\_\_\_\_

**265.194(b)**

6. Is the tank(s) provided with adequate controls to prevent spills and overflows (i.e., automatic feed cutoff, bypass to another unit, high level alarms, etc.)?      yes      no

**265.194(b)**

7. Is there sufficient freeboard (2 feet) in uncovered tanks to prevent overtopping by wave or wind action or precipitation?      yes      no      N/A

**265.195(a)**

8. Is the tank(s) inspected each operating day?      yes      no

If yes, do inspections include:

**265.195(a)(1)**

a. Overfill/spill control equipment?      yes      no

**265.195(a)(2)**

b. Aboveground portions of the tank(s) for corrosion or releases?      yes      no      N/A

**265.195(a)(3)**

c. Data gathered from monitoring equipment and leak detection equipment?      yes      no

**265.195(a)(4)**

d. Area immediately surrounding the externally accessible portion of the tank(s) and secondary containment system

for signs of erosion or releases?      yes      no      N/A

**265.195(b)(1)**

9. Does the facility perform annual inspections of the cathodic protection systems, if present?      yes      no      N/A

**265.195(c)**

10. Does the facility properly document all of the results of its tank system inspections?      yes      no

**265.196**

11. Is there any indication that the facility did not properly respond to spills or leaks from a tank(s) (this would include failure to stop the spill/leak, failure to clean up spilled/leaked material, failure to minimize migration, failure to remove tank from service immediately, failure to provide notification, etc.)?      yes      no

If yes, describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

12. Does the facility store any ignitable or reactive waste in its tank(s)?      yes      no

If yes:

**265.198(a)(1)**

a. Is the waste treated, rendered or mixed before or immediately after placement in the tank(s) so that it no longer meets the definition of ignitable or reactive waste?      yes      no

**265.198(a)(2)**

b. Is the waste stored in such a way that it is protected from any material or conditions that may cause the waste to ignite or react?      yes      no

**265.198(a)(3)**

c. Is the tank(s) used solely for emergencies?  
yes      no

**265.198(b)**

d. Does the tank(s) appear to be a safe distance from the facility's property line and public thoroughfares?  
yes      no

If no, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

13. Is there any indication that incompatible wastes are being stored in a tank(s)?      yes      no

If yes:

**265.199(a)**

a. Is there any evidence that conditions of extreme heat or pressure, fire or explosion, violent reactions or toxics emissions occurred?      yes      no

If yes, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**265.200(a)**

14. Are waste analyses or trial treatment tests conducted whenever a tank system is used to store or treat a hazardous waste substantially different from waste previously treated or stored; or used to treat chemically a hazardous waste with a substantially different process than any previously used in that system?      yes      no      N/A

If no:

**265.200(b)**

a. Has written, documented information on similar waste under similar operating conditions been obtained to show that the proposed treatment or storage will meet the requirements of §265.194(a) (i.e., hazardous waste or treatment reagents must not be placed in a tank system if they could cause the tank, its ancillary equipment or the secondary containment system to rupture, leak, corrode, or otherwise fail)?    yes    no

## **x. Surface Impoundments** *NONE*

### **265.221(a)**

1. Is the facility's surface impoundment(s) equipped with two or more liners and a leachate collection system (NOTE: S.I. containing newly listed or identified hazardous waste has 48 months after promulgation to comply-265.221(h))?    yes    no

If no, describe why: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### **265.222(a)**

2. Is there at least two feet of freeboard in the surface impoundment(s)?    yes    no

If no, how much freeboard is maintained and why: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### **265.223**

3. Do all earthen dikes have a protective cover such as grass, shale or rock to maintain structural integrity?  
yes    no    N/A

4. If the facility chemically treats hazardous waste in its surface impoundment, does it:

#### **265.225(a)(2)(i)**

a. Conduct waste analyses and trial treatment tests?  
yes    no    N/A

#### **265.225(a)(2)(ii)**

b. Have written, documented information on similar

treatment of similar waste under similar operating conditions?    yes    no    N/A

**265.226(a)(1)**

5. Does the facility inspect the freeboard level in its surface impoundment(s) at least once each operating day?

yes    no

**265.226(a)(2)**

6. Does the facility inspect the surface impoundment(s), including dikes and vegetation surrounding the dike at least once each week?    yes    no

7. Does the facility have any surface impoundments which are not being used or not intended for future use?    yes    no

If yes:

**265.228(a)(1)**

a. Has all hazardous waste and hazardous waste residue been removed from the impoundment(s) or decontaminated?

yes    no

**265.228(a)(2)**

b. Was the impoundment(s) closed by removing liquid waste or solidifying the remaining waste/residues and covering it with a final cover?    yes    no

If yes, describe appearance of final cover: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

8. Are ignitable or reactive wastes placed in a surface impoundment?    yes    no

If yes:

**265.229**

a. Do the waste and impoundment(s) satisfy all applicable requirements of the LDR regulations (40 CFR Part 268)?

yes      no

**265.229(a)**

b. Are they treated, rendered or mixed before or immediately after placement in the impoundment so that they no longer meet the definition of ignitable or reactive waste?      yes      no

**265.229(b)**

c. Are they protected from possible ignition or reaction sources and certified as such by a qualified chemist?

yes      no

If yes, describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**265.229(c)**

d. Is the impoundment(s) used solely for emergencies?

yes      no

9. Are incompatible wastes placed in the same surface impoundment?      yes      no

If yes:

**265.230**

a. Is there any evidence that conditions of extreme heat or pressure, fire or explosion, violent reactions or toxic emissions occurred?      yes      no

If yes, describe: \_\_\_\_\_

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## **XI. Waste Piles**

*NONE @ this facility*

**Note:** A waste pile used as a disposal unit is a landfill and is subject to the landfill regulations. This section pertains to waste piles that are used strictly for waste storage or treatment.

### **265.254**

1. Is the facility's waste pile(s) equipped with two liners and a leachate collection system?      yes      no

If no, describe why: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### **265.251**

2. Is the waste pile(s) covered or otherwise managed to control wind dispersal?      yes      no

### **265.252**

3. Does the facility analyze a representative sample of waste from each incoming shipment before adding the waste to any existing pile?      yes      no      N/A

4. Is the leachate or run-off from the pile(s) a hazardous waste?      yes      no

If yes:

#### **265.253(a)(1)**

a. Is the pile(s) on an impermeable base?      yes      no

#### **265.253(a)(2)**

b. Is there an adequately designed and operated run-on control system for the pile(s)?      yes      no

#### **265.253(a)(3)**

c. Is there an adequately designed and operated run-off

management system?      yes      no

**265.253(b)(1)**

d. Is the pile(s) protected from precipitation and run-on by some other means?      yes      no

If yes, describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**265.253(b)(2)**

5. Are liquids or waste containing free liquids placed in the pile(s)?      yes      no

6. Are ignitable or reactive wastes placed in the pile(s)?  
yes      no

If yes:

**265.256(a)**

a. Do the waste and pile(s) satisfy all applicable requirements of the LDR regulations (40 CFR Part 268)?  
yes      no

If no, describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**265.256(a)(1)**

b. Is the waste treated, rendered or mixed so it no longer meets the definition of ignitable or reactive?

yes no

**265.256(a)(2)**

c. Is the waste protected from sources of ignition or reaction? yes no

7. Are incompatible wastes placed in the same waste pile?  
yes no

If yes:

**265.257(a)**

a. Is there any evidence that conditions of extreme heat or pressure, fire or explosion, violent reactions or toxic emissions occurred? yes no

If yes, describe: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**265.257(b)**

8. Are waste piles adequately separated or protected from other hazardous waste management units that contain incompatible waste? yes no N/A

**265.257(c)**

9. Have hazardous wastes been placed on the same area where incompatible wastes were previously piled without first providing sufficient decontamination? yes no

If yes, describe: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

---

10. Have any of the facility's waste piles undergone closure?  
yes      no

**265.258(a)**

If yes, were all waste residues removed or decontaminated?  
yes      no

**265.258(b)**

If no, was the area closed in accordance with the  
requirements applicable to landfills?      yes      no

If no, describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**XII. Land Treatment** *NONE @ this facility*

**Note: Hazardous waste must not be placed in a land treatment unit unless the waste can be made less hazardous or nonhazardous.**

**265.272(b)**

1. Is there an adequately designed and operated run-on control system?    yes    no

If no, explain: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**265.272(c)**

2. Is there an adequately designed and operated run-off management system which effectively collects all run-off from the land treatment unit?    yes    no

If no, explain: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**265.272(e)**

3. Is wind dispersal effectively controlled within the land treatment unit?    yes    no

If no, describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**265.273(a)**

4. Has the facility determined the concentrations in the waste of all constituents which exceed the maximum allowable and cause the waste to exhibit the Toxicity Characteristic before placing such hazardous waste in a land treatment unit?

yes      no

**265.273(b)**

5. Has the facility determined the concentrations in any listed waste of any substance which caused the waste to be listed before placing such hazardous waste in a land treatment unit?      yes      no      N/A

6. Does the facility grow any food chain crops within the land treatment unit?      yes      no

If yes, answer the following questions:

**265.273(c)**

7. Has the facility determined the concentrations in the waste of arsenic, cadmium, lead and mercury before placing such hazardous waste in a land treatment unit?      yes      no

**265.276(a)**

8. Has the facility notified the Regional Administrator that food chain crops are being grown?      yes      no

**265.276(b)(1) & (2)**

9. Did the facility prepare the necessary demonstration that food chain crops will not experience any problems with arsenic, lead or mercury based on appropriate field testing?      yes      no

If yes, describe the information that was used for preparing this demonstration: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

10. Does the land treatment unit having food chain crops receive any waste that contains cadmium?      yes      no

If yes:

**265.276(c)(1)(i)**

a. Was the pH of the soil and waste mixture 6.5 or greater at the time of each waste application?

yes      no

If no, did the waste contain cadmium concentrations of 2 mg/kg (dry weight) or less?      yes      no

**265.276(c)(1)(ii)**

b. Is the annual application rate of cadmium less than 0.5 kilograms/hectare on land used to produce tobacco, leafy vegetables or root crops grown for human consumption?      yes      no      N/A

For other food chain crops, is the annual cadmium application rate less than or equal to 0.5 kilograms/hectare (beginning January 1, 1987)?

yes      no

**265.278(a)**

11. Has the facility prepared in writing and implemented an unsaturated zone monitoring plan?      yes      no

If yes, does the plan include:

**265.278(b)(1)**

a. Soil monitoring?      yes      no

**265.278(b)(2)**

b. Soil-pore water monitoring?      yes      no

**265.278(c)(1)**

c. Sample depths below waste incorporation?      yes      no

**265.278(c)(2)**

d. Number of samples to be taken?      yes      no

**265.278(c)(3)**

e. Frequency and time of sampling?      yes      no

**265.278(e)**

f. Constituents to be analyzed (must be the same as those found in the waste during waste analysis efforts)?

yes      no

12. Does the facility's implementation of its unsaturated zone monitoring plan yield the following:

**265.278(a)(1)**

a. Detection of the vertical migration of hazardous waste and hazardous waste constituents beneath the land treatment unit?      yes      no

If no, explain: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**265.278(a)(2)**

b. Information on the background concentrations of the hazardous waste and hazardous waste constituents in similar but untreated soils nearby?      yes      no

If no, explain: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**265.279**

13. Does the facility's operating record include hazardous waste application dates and rates?      yes      no

14. Have any of the facility's land treatment units undergone closure?      yes      no

If yes, were the following issues addressed:

265.280(c)(1)

a. Removal of contaminated soils?      yes      no

265.280(c)(2)

b. Placement of a final cover?      yes      no

265.280(d)(1)

c. Continuation of unsaturated zone monitoring?  
yes      no

265.280(d)(2) & (3)

d. Maintenance of run-on control system and run-off management system?      yes      no

265.280(d)(4)

e. Control wind dispersal of particulates?      yes      no

15. Are ignitable or reactive wastes placed in a land treatment unit?      yes      no

If yes:

265.281

a. Do the waste and treatment zone meet all applicable requirements of the LDR regulations (40 CFR Part 268)?  
yes      no

If no, describe: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**265.281(a).**

b. Is the waste immediately incorporated into the soil so that it no longer meets the definition of ignitable or reactive?    yes    no

**265.281(b)**

c. Is the waste protected from any sources of ignition or reaction?    yes    no

16. Are incompatible wastes placed in the same land treatment unit?    yes    no

If yes:

**265.282**

a. Is there any evidence that conditions of extreme heat or pressure, fire or explosion, violent reactions or toxic emissions occurred?    yes    no

If yes, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**XIII. Landfills**

NONE AT this facility

**265.301(a)**

1. Is the facility's landfill(s) equipped with two liners and a leachate collection system?      yes      no

If no, describe why: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**265.302(a)**

2. Is there an adequately designed and operated run-on control system?      yes      no

**265.302(b)**

3. Is there an adequately designed and operated run-off management system?      yes      no

**265.302(d)**

4. Is the landfill(s) covered or otherwise managed to control wind dispersal?      yes      no

5. Does the facility maintain the following items in its operating record:

**265.309(a)**

a. On a map, the exact location and dimensions, including depth, of each cell?      yes      no

**265.309(b)**

b. The contents of each cell and the approximate location of each hazardous waste type within each cell?

yes      no

6. Have any of the facility's landfills undergone closure?

yes      no

If yes, were the following issues addressed:

**265.310(a)**

a. Was the landfill or cell(s) covered with a final cover?    yes    no

**265.310(a)(1)**

b. Minimization of migration of liquids?    yes    no

**265.310(a)(3) & (4)**

c. Maintaining adequate drainage?    yes    no

d. Maintaining the cover's integrity?    yes    no

7. Are ignitable or reactive wastes placed in the landfill(s)?  
yes    no

If yes:

**265.312(a)**

a. Do the waste and landfill(s) satisfy all applicable requirements of the LDR regulations (40 CFR Part 268)?  
yes    no

If no, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**265.312(a)(1)**

b. Is the waste treated, rendered or mixed so it no longer meets the definition of ignitable or reactive?  
yes    no

**265.312(a)(2)**

c. Is there any evidence that conditions of extreme heat or pressure, fire or explosion, violent reactions or toxic emissions occurred?    yes    no

If yes, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**265.312(b)**

d. Is the waste protected from sources of ignition or reaction?    yes    no

8. Are incompatible wastes placed in the same landfill cell?  
yes    no

If yes:

**265.313**

a. Is there any evidence that conditions of extreme heat or pressure, fire or explosion, violent reactions or toxic emissions occurred?    yes    no

If yes, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**265.314(b)**

9. Have any bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids been placed in a landfill since May 8, 1985?    yes    no

10. Have any containers holding free liquids been placed in a landfill since March 22, 1982?    yes    no

If yes:

**265.314(c)(1)**

a. Has all free-standing liquid been removed?

yes      no

b. Has waste been mixed with absorbent or solidified so that free-standing liquid is no longer observed?

yes      no

**265.314(c)(2)**

c. Was container(s) very small, such as an ampule?

yes      no

**265.314(c)(3)**

d. Was container(s) designed to hold free liquids for use other than storage, such as a battery or capacitor?

yes      no

**265.314(c)(4)**

e. Was the container(s) a lab pack?      yes      no

**265.314(f)**

11. Are sorbents used to treat free liquids that are to be disposed of in a landfill biodegradable?

yes      no      N/A

**265.314(g)**

12. Have any liquids (non-hazardous waste) been placed in a landfill since November 8, 1985?      yes      no

If yes:

a. Was the EPA Regional Administrator notified and/or did the Regional Administrator approve of the placement of such liquids in the landfill?

yes      no

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13. Have partially full or empty container(s) been placed in a landfill?      yes      no

If yes:

**265.315(b)**

a. Were the container(s) crushed, shredded or similarly reduced in volume?      yes      no

14. Describe the general appearance of the landfill: \_\_\_\_\_

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**XIV. Incinerators**

*None At this facility*

1. Is the facility using (a) incinerator (b) boiler or (c) industrial furnace in order to (a) destroy hazardous waste or (b) for any recycling purpose? (circle the appropriate ones)

2. Describe the type (include waste codes) of hazardous waste being burned at this facility.

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**265.341**

3. Has the facility analyzed any waste that has not previously been burned in its incinerator?    yes    no    N/A

If yes, did the analysis determine:

a. Heating value of the waste?    yes    no

b. Halogen and sulfur content of the waste?    yes    no

c. Concentrations of lead and mercury in the waste?  
yes    no

If no, can the facility document that these elements are not present?    yes    no

**265.345**

4. During start-up and shut-down, is the incinerator operating at steady state conditions whenever hazardous waste is fed?  
yes    no

**265.347**

5. Are monitoring/inspections performed when incinerating hazardous waste?    yes    no

If yes, do they include:

a. Monitoring of existing instruments which relate to combustion and emission control at least every 15 minutes?    yes    no

~~b. Inspections of complete incinerator and associated equipment at least daily for leaks, spills, and fugitive emissions?    yes    no~~

265.351

6. Has the facility closed any of its incinerators?

yes      no

If yes, have all hazardous waste and hazardous waste residues been removed?      yes      no

265.352

7. Does the facility burn F020, F021, F022, F023, F026, or F027 waste?      yes      no

If yes, did the facility receive a proper certification from EPA indicating that it can meet the necessary performance standards when burning these wastes?      yes      no

xv. **Thermal Treatment** - open burning for Propellant

1. Is the process a non-continuous (batch) process?

yes no

265.373

If no, is the process operating at steady state conditions (including temperature) before adding hazardous waste?

yes no

265.375

2. Does the facility have records to indicate that it analyzes any waste which had not previously been treated in the thermal process? yes no *N/A*

If yes, did analyses include the following:

265.375(a)

a. Heating value? yes no

265.375(b)

b. Halogen content? yes no

c. Sulfur content? yes no

265.375(c)

d. Concentration of lead? yes no

~~e. Concentration of mercury? yes no~~

Note: d. and e. are not required if the facility has written documentation data that show the elements are not present.

3. Is this analytical data placed in the facility's operating

record? yes no

265.377(a)(1)

4. Are the existing instruments which relate to temperature and emission control monitored at least every 15 minutes?

yes no N/A

If yes, are appropriate corrections to maintain steady state conditions made immediately, either automatically or by the operator? yes no

265.377(a)(2)

5. Is the stack plume (emissions) observed visually at least hourly for normal appearance (color and opacity)? yes no N/A

If yes, are operating corrections made immediately to return any visible emissions to their appearance? yes no

265.377(a)(3)

6. Is the complete thermal treatment process and associated equipment (pumps, valves, conveyors, pipes, etc.) inspected at least daily for leaks, spills and fugitive emissions? N/A

yes no

7. Are all emergency shutdown controls and system alarms checked at least daily to assure proper operation? N/A

yes no

8. Have any of the facility's thermal treatment units undergone closure? yes no

265.381

If yes, were all hazardous waste and hazardous waste residues removed from the thermal treatment process/equipment?

yes no

9. Is open burning of hazardous wastes conducted at this facility? yes no

265.382

If yes, is the open burning of hazardous waste restricted to waste explosives? yes no

If no, describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

10. Is open burning or detonation of waste explosives performed in accordance with the "minimum distance" requirements shown below? yes no N/A

**Pounds of waste  
explosives or  
propellants**

**Minimum distance from open  
burning or detonation to  
the property of others**

0 - 100

204 m (670 feet)

101 - 1,000

380 m (1,250 feet)

1,001 - 10,000

530 m (1,730 feet)

10,001 - 30,000

690 m (2,260 feet)

NONE AT THE FACILITY

## xvi. Chemical, Physical and Biological Treatment

**Note:** This section applies to the treatment of hazardous waste in units other than tanks, surface impoundments and land treatment facilities.

1. Does the treatment process and equipment exhibit any signs of excessive corrosion, deterioration or wear?      yes      no

If yes, describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2. Are any of the treatment processes or equipment inoperative or do not appear to be operating properly?      yes      no

If yes, describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3. Are there any leaks or other failures associated with any aspect of the facility's treatment system?      yes      no

If yes, describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**265.401(c)**

4. Is there a means to stop waste inflow to the treatment

process if the process is a continuous feed system?  
yes      no      N/A

**265.402(a)**

5. If hazardous waste is to be treated which is substantially different from any waste previously treated at the facility or a substantially different process than any previously used at the facility is used to treat the waste, does the facility:

a. Conduct waste analyses and trial treatment tests  
(e.g., bench scale or pilot plant scale)      yes      no

b. Obtain written, documented information on similar  
treatment of similar waste?      yes      no

**265.403(a)(1)**

6. Does the facility inspect, where present, discharge control and safety equipment at least daily?      yes      no

**265.403(a)(2)**

7. Does the facility inspect, where present, data gathered from monitoring equipment at least daily?      yes      no

**265.403(a)(3)**

8. Does the facility inspect the construction materials of the treatment process or equipment at least weekly?      yes      no

**265.403(a)(4)**

9. Does the facility inspect the construction materials of, and the area immediately surrounding, discharge confinement structures at least weekly?      yes      no

10. Have any of the facility's treatment processes undergone closure?      yes      no

**265.404**

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If yes, was all hazardous waste and hazardous waste residues removed from the treatment processes or equipment?  
yes      no

11. Are ignitable or reactive wastes placed in the treatment process?      yes      no

If yes:

**265.405(a)(1)**

a. Is the waste treated, rendered or mixed before or immediately after placement in the treatment process so it no longer meets the definition of ignitable or reactive?    yes    no

b. Is there any evidence that conditions of extreme heat or pressure, fire or explosion, violent reactions or toxic emissions occurred?    yes    no

If yes, describe: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**265.405(a)(2)**

c. Is the waste protected from sources of ignition or reaction?    yes    no

12. Are incompatible wastes placed in the same treatment process or equipment?    yes    no

If yes:

**265.406(a)**

a. Is there any evidence that conditions of extreme heat or pressure, fire or explosion, violent reactions or toxic emissions occurred?    yes    no

If yes, describe: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**xvii. Containment Buildings** *NONE AT THE FACILITY*

**265.1101(a)(1) & (2)**

1. Is the containment building(s) completely enclosed and designed and constructed of man-made materials that are of sufficient strength?      yes      no

If no, describe: \_\_\_\_\_

\_\_\_\_\_

**265.1101(a)(3)**

2. Is there any indication that incompatible waste is being improperly stored in the containment building?      yes      no

If yes, describe: \_\_\_\_\_

\_\_\_\_\_

**265.1101(a)(4)**

3. Does the containment building(s) have a primary barrier that appears to be sufficiently durable and effective?

yes      no

If no, describe: \_\_\_\_\_

\_\_\_\_\_

4. Does the containment building manage hazardous waste containing free liquids?      yes      no

If no, skip to question 7:

**265.1101(b)(2)**

5. Is there a liquid collection and removal system available to prevent the accumulation of liquid on the primary barrier?

yes      no

If yes, describe the system and the presence/absence of collected liquids: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**265.1101(b)(3)**

6. Is there an effective secondary containment system (i.e., secondary barrier) and a leak detection system capable of detecting failure of the primary barrier?      yes      no

If no, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7. Does the containment building serve as secondary containment for tank(s) placed within the building?

yes      no

If yes,

**265.1101(b)(3)(iii)**

a. Does it appear to meet the secondary containment system requirements for tanks described in §265.193 (i.e., must be compatible with waste, have sufficient strength and durability, and be designed to effectively detect and collect releases of liquid)?      yes      no

If no, describe: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**265.1101(c)(1)(i)**

8. Is the primary barrier free of significant cracks, gaps, corrosion or other deterioration/openings?      yes      no

**265.1101(c)(1)(ii)**

9. Is the hazardous waste stored at a height that exceeds the height of any containment wall?      yes      no

**265.1101(c)(1)(iii)**

10. Is any hazardous waste tracked outside of the containment building by personnel or equipment?      yes      no

**265.1101(c)(1)(iv)**

11. Are any fugitive emissions exiting the containment building via doors, windows, cracks, vents, etc?      yes      no

**265.1101(c)(2)**

12. Does the facility have a certification for the containment building by a qualified registered professional engineer?  
yes      no

13. Does the facility have an inspection plan for its containment building that establishes an effective inspection program, including a schedule that requires all monitoring/leak detection equipment to be inspected as well as checks for leaks/releases at least every 7 days?      yes      no

**265.1101(c)(3)**

14. Is there any indication that the containment building was improperly operated or maintained or that the owner/operator did not respond properly once the detection of a hazardous waste release occurred?      yes      no

If yes, describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Additional Comments:**

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This checklist is intended solely to assist inspectors in structuring an inspection and to help them ensure that common regulatory issues are not overlooked. It is not necessarily intended to represent an accurate record of the inspector's findings or observations. Notations and other comments on the checklist are not always to be viewed as direct observations by the inspector or actual fact, but may instead reflect claims by facility personnel or tentative responses which require further investigation for confirmation.

### EPA GENERATOR CHECKLIST

8-14-07

(Does not apply to Universal Waste Handlers)

Name of Facility: AEROJET CORP.

Address of Facility: 7499 Pine Stake Road  
Rhodesville, VA 22542

EPA I.D. Number: VAD-981-112 018

SIC CODE: 3764

Name/Title of Facility Representative: Timothy Holden

James Berkes

540/854-2000

## **I. General**

1. Provide a brief description of the type of operation(s) that produces hazardous waste at this facility:

Propellant manufacturing

2. Does the facility perform the following on-site:

a. storage (>90 day or >180 day for SQG) of hazardous waste? yes ☒ no

b. treatment of hazardous waste? ☒ yes no - Subpart X

c. disposal of hazardous waste? yes ☒ no

(if yes, complete appropriate TSD checklists)

**261.4**

3. Is the facility subject to any exclusions for its hazardous waste? yes no

If yes, list the waste and the basis for exclusion:

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**262.11(c)**

4. Has the facility properly determined whether all of its waste exhibits any of the characteristics of hazardous waste? yes no

If yes, describe what this determination was based upon (i.e., testing or knowledge of process/materials used).

Knowledge of waste & product

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If no, describe omissions:

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5. Has the facility failed to notify EPA/State of any of its hazardous waste management activities, including locations of all hazardous waste accumulation areas? yes no

If yes, describe: \_\_\_\_\_

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## II. Manifest

Complete this section only if facility ships hazardous waste off-site.

### 262.20(a)

1. Does the facility use the Uniform Hazardous Waste Manifest whenever transporting hazardous waste? ☒ yes no

If no, explain: \_\_\_\_\_

If yes, review a representative number of manifests and indicate whether they contain:

a. Generator's name, mailing address, telephone number and EPA ID number?

☒ yes no

b. Transporter's name and EPA ID number? ☒ yes no

c. DOT waste description, including proper shipping name, hazardous waste class and DOT identification number? ☒ yes no

d. Number and type of containers (if applicable)?

☒ yes no

e. Quantity of each waste transported? ☒ yes no

f. Name, EPA ID number and site address of facility designated to receive the waste?

☒ yes no

g. The following certification? ☒ yes no

"I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked, and labelled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations."

Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the

method of treatment, storage or disposal currently available to me which minimizes the present and future threat to human health and environment."

**262.23(a)**

2. Did the generator:

a. Sign and date the manifest? ☒ yes ☐ no

b. Obtain the handwritten signature and date of acceptance from the initial transporter? ☒ yes ☐ no

c. Ensure that return copies of the manifest from the designated TSD facility were properly signed and dated?  
☒ yes ☐ no

d. Retain a copy of the signed manifest for at least three years? ☒ yes ☐ no

**The inspector should obtain copies of any manifests that are found to have problems.**

### **III. Pre-Transport Requirements**

Complete this section only if the facility ships hazardous waste off site.

1. Is there any indication that the facility is:

**262.30**

a. Not packaging its waste in accordance with DOT regulations (49 CFR Parts 173, 178 and 179)? yes ☒ no

**262.31**

b. Not labelling each package in accordance with DOT regulations (49 CFR Part 172)? yes ☒ no

**262.32(a) & (b)**

c. Not marking each container of 110 gallons or less with the words "hazardous waste -----" or each package of hazardous waste in accordance with DOT regulations (49 CFR Part 172)? yes ☒ no

If yes, explain: \_\_\_\_\_

262.33

2. Does the facility placard or offer the transporter placards for its hazardous waste shipments? ☒ yes ☐ no

## IV. Waste Accumulation

1. Does the facility utilize the following types of hazardous waste accumulation:

a. Satellite accumulation? ☒ yes ☐ no

b. Less than 90 day storage? ☒ yes ☐ no

Answer the following questions if the generator has **satellite accumulation area(s)**.

262.34(c)(1)

2. Is satellite accumulation area(s) near the point of waste generation and under the control of the operator of the process actually generating the waste? yes ☒ no ☐   it  

If no, describe: See Report

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262.34(c)(1)

3. Are there multiple satellite accumulation areas for any one process that generates hazardous waste? yes ☒ no ☐

If yes, describe: \_\_\_\_\_

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262.34(c)(1)

4. Is the waste stored in container(s)? ☒ yes ☐ no

**265.171**

5. Are container(s) in good condition? ☒ yes ☐ no

If no, explain: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**262.34(c)(1)**

6. Are container(s) marked with the words "hazardous waste" or the actual contents of the container(s)? ☒ yes ☐ no

**265.173(a)**

7. Are container(s) kept closed? ☒ yes ☐ no

**265.171**

8. Are any container(s) leaking? yes ☒ no

If yes, describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**262.34(c)(1)**

9. Has the facility accumulated more than 55 gallons of hazardous waste or more than 1 quart of acutely hazardous waste in a satellite accumulation area? yes ☒ no  
(F020 to F023, F026 & F027 AND P waste)

If yes:

**262.34(c)(2)**

a. Are the container(s) holding excess waste dated as to when accumulation began?  
yes ☐ no ☐

b. Does the excess waste comply with the less than 90 day storage requirements (40 CFR Part 262.34(a)) within three days of the time when accumulation of such excess waste began? yes ☐ no ☐

## PERSONNEL TRAINING

Answer the following questions if the facility has less than 90 day storage.

### 262.34(a)(4)

10. Does the facility maintain personnel training and other records required in 40 CFR Part 265.16? ☒ yes no

If yes, do these records include:

### 265.16(d)(1)

a. Job title for each position related to hazardous waste management and the employee filling each job? ☒ yes no

### 265.16(d)(2)

b. A written job description for each position?

☒ yes no not observed

### 265.16(d)(3)

c. A written description of the type and amount of training that will be given to each person? ☒ yes no in ISO plan

### 265.16(d)(4)

d. Records that document that the training or job experience required by facility personnel to effectively respond to emergencies and otherwise manage hazardous waste in a proper manner has been successfully completed? ☒ yes no

### 265.16(b)

11. Have facility personnel successfully completed the required training or job experience within six months after occupying the position? ☒ yes no

### 265.16(c)

12. Do facility personnel take part in an annual review of the initial training requirements and update them as necessary? ☒ yes no

### 262.34(a)(4)

13. Does the facility maintain an adequate preparedness and prevention program as required in 40 CFR Part 265 Subpart C?

☒ yes no

Is the facility equipped with:

**265.32(a)**

a. Internal communications or alarm system? ☒ yes no

**265.32(b)**

b. Telephone or hand-held two-way radio? ☒ yes no

**265.32(c)**

c. Portable fire extinguishers or other fire control equipment, spill control equipment and decontamination equipment? ☒ yes no

**265.32(d)**

d. Adequate volume of water? ☒ yes no

**265.33**

14. Does the facility test and maintain the above equipment to assure its proper operation?  
☒ yes no

**265.35**

15. Is there sufficient aisle space to allow the unobstructed movement of personnel and equipment to areas where hazardous waste are located in the event of an emergency? ☒ yes  
no

**265.37(a)(1)**

16. Has the facility made arrangements with local authorities to familiarize them with the layout of the facility and the nature/hazards of the hazardous waste handled at the facility?  
☒ yes no

**262.34(a)(4)**

17. Has the facility prepared a contingency plan and is it maintained at the facility? ☒ yes  
no

If yes, does it contain the following:

**265.52(a)**

a. Description of the actions that are to be taken in case of an emergency (all potential types of emergencies should be identified)? ☒ yes no

**265.52(c)**

b. Description of arrangements made with local authorities? ☒ yes no

**265.52(d)**

c. Current list of emergency coordinators' names, addresses and phone numbers

(office and home)?

☒ yes ☐ no

**265.52(e)**

d. List of all emergency equipment at the facility, including locations, descriptions and relevant capabilities? yes no *not observed*

**265.52(f)**

e. Evacuation plan for facility personnel? ☒ yes ☐ no

**The inspector should obtain a copy of the facility's contingency plan if any problems are found.**

**265.53(b)**

18. Were copies of the contingency plan submitted to local authorities that may provide emergency services? yes no *not observed*

19. Has the facility's contingency plan ever failed in an emergency? yes no ☒ N/A

If yes:

**265.54(b)**

a. Was the contingency plan immediately amended? yes no

**265.54(c), (d) & (e)**

20. Was the contingency plan amended when either the facility or its operations, list of emergency coordinators or list of emergency equipment had changed? yes no ☒ N/A

If no, describe: \_\_\_\_\_

**265.56(j)**

21. If the contingency plan is implemented, does the facility record the time, date and details of the incident in its operating log and submit a written report of the incident to the Regional Administrator or the appropriate state agency within 15 days? yes no N/A

**262.34(a)(1)**

22. What is the method of waste storage:

Containers? ☒ yes ☐ no

Tanks? yes ☒ no

Containment Buildings? yes ☒ no

Does the facility manage any of the following units for hazardous waste?

Ground Water Monitoring

Waste Piles

Landfills

Thermal Treatment

↳ subpart x permit

yes

☒ no

Surface Impoundments

Land Treatment

Incinerators

Chem. Physical or Bio Treat.

If so, describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

If the facility uses either containers or tanks for <90 day waste accumulation the inspector will need to complete the appropriate sections of the Air Emission Standards Checklist (40 CFR 265 Subpart CC). (Effective Date - December 6, 1996)

## CONTAINER STORAGE.

### 262.34(a)(2)&(3)

23. Are the container(s) marked with the words "Hazardous Waste" and the date that waste accumulation in that container begins? ☒ yes no

### 262.34(a)

24. Based upon accumulation dates, have any container(s) been in storage for more than 90 days? yes ☒ no

If yes, the inspector should complete the appropriate TSD checklists.

### 265.171

25. Are container(s) in good condition? ☒ yes no

If no, explain: \_\_\_\_\_

\_\_\_\_\_

### 265.172

26. Are container(s) made of or lined with materials which will not react with or be incompatible with the waste they are storing? ☒ yes ☐ no

**265.173(a)**

27. Are container(s) kept closed? ☒ yes ☐ no

**265.173(b)**

28. Are containers(s) opened, handled or stored in a manner which may rupture the container or cause it to leak?

yes ☒ no

If yes, describe: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**265.171**

29. Are any container(s) leaking? yes ☒ no

If yes, describe: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**265.174**

30. Are container storage area(s) inspected at least weekly and is an adequate inspection record/log maintained? ☒ yes ☐ no

If no, explain: \_\_\_\_\_

\_\_\_\_\_

**265.176**

31. Are container(s) holding ignitable or reactive waste located at least 15 meters (50 feet) from the facility's property line? ☒ yes ☐ no N/A

32. Are incompatible wastes placed in the same container(s)? yes ☒ no

If yes:

**265.177(a) & 265.17(b)**

a. Is there any evidence that conditions of extreme heat or pressure, fire or explosion,

violent reactions or toxic emissions occurred? yes no

If yes, describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**265.177(c)**

33. Are container(s) holding incompatible hazardous waste properly separated or protected from one another while in storage? yes no N/A

If no, explain: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# TANK STORAGE

NO TANKS @ this  
location

## 262.34(a)(3)

34. Is the tank(s) labelled or clearly marked with the words "Hazardous Waste"? yes no

## 262.34(a)

35. Is the tank marked with the date that waste accumulation begins in that tank(s) or does the facility have in its records when waste accumulation started in that tank(s)?

yes no

## 262.34(a)

36. Based upon accumulation dates, has the facility stored hazardous waste in its tank(s) for longer than 90 days?

yes no

**If yes, the inspector should complete the appropriate TSD checklists.**

37. Which of the following describes the type of tank(s) employed at this facility (circle the appropriate one)?

- a. Indoor - not on impermeable floor
- b. Indoor - on impermeable floor
- c. Outdoor - above ground
- d. Outdoor - in ground
- e. Outdoor - underground

38. What is the approximate age of the tank(s)?

\_\_\_\_\_

## 265.191

39. Does the tank(s) appear to be in good condition? yes no can't tell

If no, describe: \_\_\_\_\_

**265.191**

40. Is the tank(s) leaking? yes no can't tell

If yes, describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**265.193**

41. Is the tank(s) provided with an effective secondary containment system? yes no

If yes, describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

If no:

**265.191(a)**

a. Does the facility have a written assessment reviewed and certified by an independent, qualified, registered professional engineer that attests to the tank(s)'s structural integrity? yes no

**265.191(b)**

42. Was a leak test performed on the tank(s)? yes no

If yes, provide date of most recent test: \_\_\_\_\_

**265.194(b)**

43. Is the tank(s) provided with adequate controls to prevent spills and overflows (i.e., automatic feed cutoff, bypass to another unit, high level alarms, etc.)? yes no

**265.194(b)**

44. Is there sufficient freeboard (2 feet) in uncovered tanks to prevent overtopping by wave or wind action or precipitation? yes no N/A

**265.195(a)**

45. Is the tank(s) inspected each operating day?    yes    no

If yes, do inspections include:

**265.195(a)(1)**

a. Overfill/spill control equipment?    yes    no

**265.195(a)(2)**

b. Aboveground portions of the tank(s) for corrosion or releases?    yes    no    N/A

**265.195(a)(3)**

c. Data gathered from monitoring equipment and leak detection equipment?    yes  
no

**265.195(a)(4)**

d. Area immediately surrounding the externally accessible portion of the tank(s) and secondary containment system for signs of erosion or releases?    yes    no    N/A

**265.195(b)(1)**

46. Does the facility perform annual inspections of the cathodic protection systems, if present?                    yes    no    N/A

**265.195(c)**

47. Does the facility properly document all of the results of its tank system inspections?    yes  
no

**265.196**

48. Is there any indication that the facility did not properly respond to spills or leaks from a tank(s) (this would include failure to stop the spill/leak, failure to clean up spilled/leaked material, failure to minimize migration, failure to remove tank from service immediately, failure to provide notification, etc.)?    yes    no

If yes, describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

49. Does the facility store any ignitable or reactive waste in its tank(s)?    yes    no

If yes:

**265.198(a)(1)**

a. Is the waste treated, rendered or mixed before or immediately after placement in the tank(s) so that it no longer meets the definition of ignitable or reactive waste?

yes no

**265.198(a)(2)**

b. Is the waste stored in such a way that it is protected from any material or conditions that may cause the waste to ignite or react? yes no

**265.198(a)(3)**

c. Is the tank(s) used solely for emergencies? yes no

**265.198(b)**

d. Does the tank(s) appear to be a safe distance from the facility's property line and public thoroughfares?

yes no

If no, describe: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

50. Is there any indication that incompatible wastes are being stored in a tank(s)? yes no

If yes:

**265.199(a)**

a. Is there any evidence that conditions of extreme heat or pressure, fire or explosion, violent reactions or toxics emissions occurred? yes no

If yes, describe: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**265.195(a)**

45. Is the tank(s) inspected each operating day?    yes    no

If yes, do inspections include:

**265.195(a)(1)**

a. Overfill/spill control equipment?    yes    no

**265.195(a)(2)**

b. Aboveground portions of the tank(s) for corrosion or releases?    yes    no    N/A

**265.195(a)(3)**

c. Data gathered from monitoring equipment and leak detection equipment?    yes  
no

**265.195(a)(4)**

d. Area immediately surrounding the externally accessible portion of the tank(s) and secondary containment system for signs of erosion or releases?    yes    no    N/A

**265.195(b)(1)**

46. Does the facility perform annual inspections of the cathodic protection systems, if present?    yes    no    N/A

**265.195(c)**

47. Does the facility properly document all of the results of its tank system inspections?    yes  
no

**265.196**

48. Is there any indication that the facility did not properly respond to spills or leaks from a tank(s) (this would include failure to stop the spill/leak, failure to clean up spilled/leaked material, failure to minimize migration, failure to remove tank from service immediately, failure to provide notification, etc.)?    yes    no

If yes, describe: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

49. Does the facility store any ignitable or reactive waste in its tank(s)?    yes    no

If yes:

**265.198(a)(1)**

a. Is the waste treated, rendered or mixed before or immediately after placement in the tank(s) so that it no longer meets the definition of ignitable or reactive waste?

yes no

**265.198(a)(2)**

b. Is the waste stored in such a way that it is protected from any material or conditions that may cause the waste to ignite or react? yes no

**265.198(a)(3)**

c. Is the tank(s) used solely for emergencies? yes no

**265.198(b)**

d. Does the tank(s) appear to be a safe distance from the facility's property line and public thoroughfares?

yes no

If no, describe: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

50. Is there any indication that incompatible wastes are being stored in a tank(s)? yes no

If yes:

**265.199(a)**

a. Is there any evidence that conditions of extreme heat or pressure, fire or explosion, violent reactions or toxics emissions occurred? yes no

If yes, describe: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**265.200(a)**

51. Are waste analyses or trial treatment tests conducted whenever a tank system is used to store or treat a hazardous waste substantially different from waste previously treated or stored; or used to treat chemically a hazardous waste with a substantially different process than any previously used in that system?    yes    no    N/A

If no:

**265.200(b)**

a. Has written, documented information on similar waste under similar operating conditions been obtained to show that the proposed treatment or storage will meet the requirements of §265.194(a) (i.e., hazardous waste or treatment reagents must not be placed in a tank system if they could cause the tank, its ancillary equipment or the secondary containment system to rupture, leak, corrode or otherwise fail)?    yes    no



**LDR CHECKLIST FOR GENERATORS**  
(revised August, 1998)

**Date:**

8-14-07

Name of Facility: AEROTet Corp

Address of Facility: 7499 Pine Stake Rd  
Rhodesville, VA 22542

EPA I.D. Number: VAD 981 112 618

**261.20 - 261.24**

1. Does the facility generate any "characteristic" hazardous waste?

☒ Yes ☐ No

If yes, circle the appropriate one(s)

☒ D001 ☒ D002 ☒ D003 ☒ D004-D011\* ☒ D012-D043

\* Subject to LDR regs if waste was assumed or determined via testing to fail TCLP thresholds. Prior to August 24, 1998, if waste was assumed or determined via testing to pass EP Tox, but failed TCLP it was considered a newly listed waste and was not subject to the LDR regs

**261.30 - 261.33**

2. Does the facility generate any "listed" hazardous waste?

☒ Yes ☐ No

If yes, list the waste code(s)

F001

F002

F003

F005

3. Does the facility generate any contaminated soil?

Yes ☒ No

4. Does the facility generate any hazardous debris (debris means any solid material exceeding a 60 mm particle size that is a manufactured object, plant or animal matter or natural geologic formation)

but is not a process residual such as a slag, sludge/residue associated with waste treatment or a material already having a specified treatment standard - hazardous debris means a debris containing a hazardous waste)?

~~Yes~~ ☒ No

If yes, has the hazardous debris been excluded from the definition of a hazardous waste under 261.3(f)(2) i.e., determined not to be a hazardous waste by the Regional Administrator/Director?

Yes No *N/A*

**268.1(e)**

5. Is any of the facility's waste excluded from LDR regulation because (a) it was generated by a small quantity generator (<100 kg/mo), (b) it was a waste pesticide that a farmer disposed of, (c) it was not identified or listed as hazardous until after November 8, 1984 and prohibitions/treatment standards have not yet been promulgated, (d) it was a de minimis loss to wastewater treatment systems of a commercial chemical product or chemical intermediates that are ignitable or corrosive, (e) it is a laboratory waste displaying the characteristic of ignitability, corrosivity or organic toxicity (D012-D043) that is commingled with other wastewaters before being treated in a permitted facility or (f) it is classified as a "universal" waste (batteries, pesticides, thermostats)?

Yes ☒ No

If yes, describe:

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**268.5 & 268.6**

6. Is any of the facility's waste subject to an LDR exemption, waiver, delisting or national capacity variance?

Yes ☒ No

If yes, identify which and obtain documentation:

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**262.11(c) & 268.7(a)**

7. Does the facility (a) test its waste using TCLP or (b) apply knowledge of its waste to determine whether its listed waste or contaminated soil exhibits a characteristic of hazardous waste and whether its restricted from land disposal?

☒ Yes No N/A

If yes, circle (a) or ☒ (b)

**268.7(a)(1)**

8. Unless its wastes or contaminated soil are subject to a particular treatment technology before they can be land disposed, does the generator (a) test its waste(s) or (b) use knowledge of the waste(s) to determine if either its characteristic or listed waste is prohibited from land disposal (i.e., does not meet applicable treatment standards) and thus must be treated before it can be land disposed?

☒ Yes ☐ No

If yes, circle (a) or ☒ (b)

**268.9(a) & 268.7(a)**

9. Does the generator determine each EPA hazardous waste code applicable to the waste in order to determine the applicable treatment standards?

☒ Yes ☐ No

**268.7(a)**

10. If testing of waste is performed, does the facility do a total waste analysis where required and/or a TCLP waste extract analysis where it is required (refer to Table 268.40)?

Yes ☐ No ☒ N/A

**268.7(a) & 268.9(a)**

11. If the facility generates a waste that displays a hazardous characteristic, has it determined what "reasonably expected" underlying hazardous constituents (UHCs) are present in this waste?

☒ Yes ☐ No ☐ N/A

**268.40 - 268.48**

12. Does the facility's hazardous waste(s) exceed any of the applicable treatment standards upon generation (including Universal Treatment Standards for underlying hazardous constituents, technology based standards and special treatment standards for non-excluded hazardous debris, lab packs or contaminated soil)?

☒ Yes ☐ No ☐ N/A

13. If the facility generates waste containing any of the organic solvents listed in the F001 - F005 waste codes, were those chemicals used for or did the waste result from their solvent properties (i.e., degreasing, dissolving, cleaning, solubilizing, etc.)?

No ☐ N/A

☒ Yes

If N/A, skip to question 16

If no, describe below what were these chemicals used for.

14. How did the facility classify the waste containing the organic solvents listed in the F001 - F005 waste codes (circle the appropriate waste code)?

D001 TC F001 - F005 P or U Other(describe)

15. Is there any evidence that solvent waste was misclassified?

Yes

No

If yes, describe

268.2(f) 268.40 - 268.48

16. Does the facility analyze its waste for TOC and TSS to determine proper treatability group (i.e., wastewater or non-wastewater) or in the case of D001, proper waste subcategory)? Yes No

N/A

If no, describe below how this determination is made:

17. Does it appear that any other restricted waste was misclassified or placed in the wrong

treatability/sub-category group?

Yes

☒ No

If yes, describe:

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18. Does the facility, in any way, mix/aggregate/dilute any of its restricted hazardous waste with another hazardous waste, non-hazardous waste or non-waste material prior to (1) storage, (2) treatment or (3) disposal (include burning/thermal treatment of waste where no cyanides or LDR organics are involved since this is also dilution)?

Yes

☒ No

If yes, describe the wastes involved, when, where and why it's done or other important circumstances. **Note whether dilution of an ignitable, corrosive or reactive waste, except D003 reactive cyanide, occurs as a result of treatment in a permitted facility (includes impoundments). If the treatment method provided is effective for that type of waste or is specified as the technology standard or the prohibited waste is treated in a surface impoundment in accordance with 268.4 this type of dilution is permissible.**

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**268.3(a)**

19. Based on your observations, does it appear that the facility is using dilution as a substitute for appropriate/legitimate treatment or to improperly switch treatability group (i.e., wastewater vs non-wastewater)?

Yes

☒ No

If yes, describe as necessary:

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**Yes**    **No**    **N/A**

**Yes**      **No**      **N/A**

**Yes** No N/A

Yes No N/A

**Yes      No**

**Yes      No      N/A**

**Yes      No**

None observed  
during this inspection.

**Yes      No**

## 6

26. Are alternate treatment standards being applied?

Yes No

If no, are the proper waste/constituent specific treatment standards being applied? Yes No

If yes -

Has the generator submitted a notice to the treatment facility, with its initial shipment of waste, of all waste codes contained in the lab packs? Yes No

Has the generator certified that its lab pack contains none of the wastes identified in Appendix IV?

DOO9 F019 KO03 K005 K006 K062 K071 K100 K106

P010 P011 P012 P076 P078 U134 U151

Yes No

**268.7(a)(5)**

27. Does the facility treat any of its hazardous wastes or contaminated soil in 90 day tanks, containers or containment buildings to meet the applicable treatment standards, which may include alternative soil treatment standards adopted by the State?

Yes

☒ No

If yes, has the facility prepared a waste analysis plan which includes frequency of testing?

Yes

No

If yes, is the plan kept on site in the facility's files?

Yes

No

**268.7(a)(2)**

28. Has the generator submitted a one time written notice with the initial shipment of waste or contaminated soil to each treatment or storage facility if its waste does not meet applicable treatment standards? *see attached manifests for example*

☒ Yes

No

N/A

If yes, answer the following questions pertaining to notifications:

**268.7(a)(2)**

a) Do the notifications include the EPA Hazardous Waste Number?

☒ Yes

No

**268.7(a)(2)**

b) Do the notifications include the underlying hazardous constituents for characteristic wastes as well as the waste constituents that the treater should monitor if monitoring will not include all regulated constituents for wastes F001-F005 and F039 ?

☒ Yes

No

N/A

**268.7(a)(2)**

c) Do the notifications specify whether the waste is a non-wastewater or wastewater and applicable sub-categories?

☒ Yes

No

N/A

**268.7(a)(2)**

d) Do the notifications include the manifest number associated with the shipment of waste?

Yes No

**268.7(a)(2)**

e) For hazardous debris which is using the alternative treatment technologies, do the notifications include the contaminants subject to treatment?

Yes No N/A

**268.7(a)(2)**

f) Do the notifications include available waste analysis data?

Yes No N/A

**268.7(a)(2)(i)**

g) For contaminated soil, is there a certification statement signed by an authorized representative indicating its LDR status?

Yes No N/A

**268.7(a)(3)(i)**

29. Has the facility submitted, with the initial shipment of waste or contaminated soil to each treatment, storage or disposal facility, a one time written notice that its waste meets the appropriate treatment standards?

Yes No N/A

If yes, answer the following questions pertaining to notifications:

**268.7(a)(3)(i)**

a) Do the notifications include the EPA Hazardous Waste Number? Yes No

**268.7(a)(3)(i)**

b) Do the notifications include the underlying hazardous constituents for characteristic wastes as well as the waste constituents that the treater should monitor if monitoring will not include all regulated constituents for wastes F001-F005 and F039? Yes No N/A

**268.7(a)(3)(i)**

c) Do the notifications specify whether the waste is a non-wastewater or wastewater and applicable sub-categories? Yes No N/A

**268.7(a)(3)(i)**

d) Do the notifications include the manifest number associated with the shipment of waste? Yes No

**268.7(a)(3)(i)**

e) Do the notifications include the required certification statement signed by an authorized representative?

Yes No

**268.7(a)(3)(i)**

f) Do the notifications include available waste analysis data?

Yes No N/A

**268.7(a)(3)(ii)**

30. If the waste changes, has the generator sent a new notice and/or certification to the receiving facility and placed a copy in their files? *presumed* **Yes** No N/A

**268.7(a)(6) 268.7(a)(8)**

31. Has the generator retained in on-site files the following materials:

a) all data used to determine whether its waste is restricted or meets applicable treatment standards upon generation, including knowledge of waste and test results? **Yes** No

b) copies of all notices and certifications for the past three years that were sent to treatment/disposal facilities and contractual agreements where the waste and the treater stay the same? **Yes** No

**55 FR 22662(A.1) 268.7(a)(7)**

32. If the generator treats a restricted waste in a WWTP having an NPDES permit, is there a statement in its operating log indicating that the WWTP is treating a RCRA restricted waste?

Yes No **N/A**

**Additional Comments**

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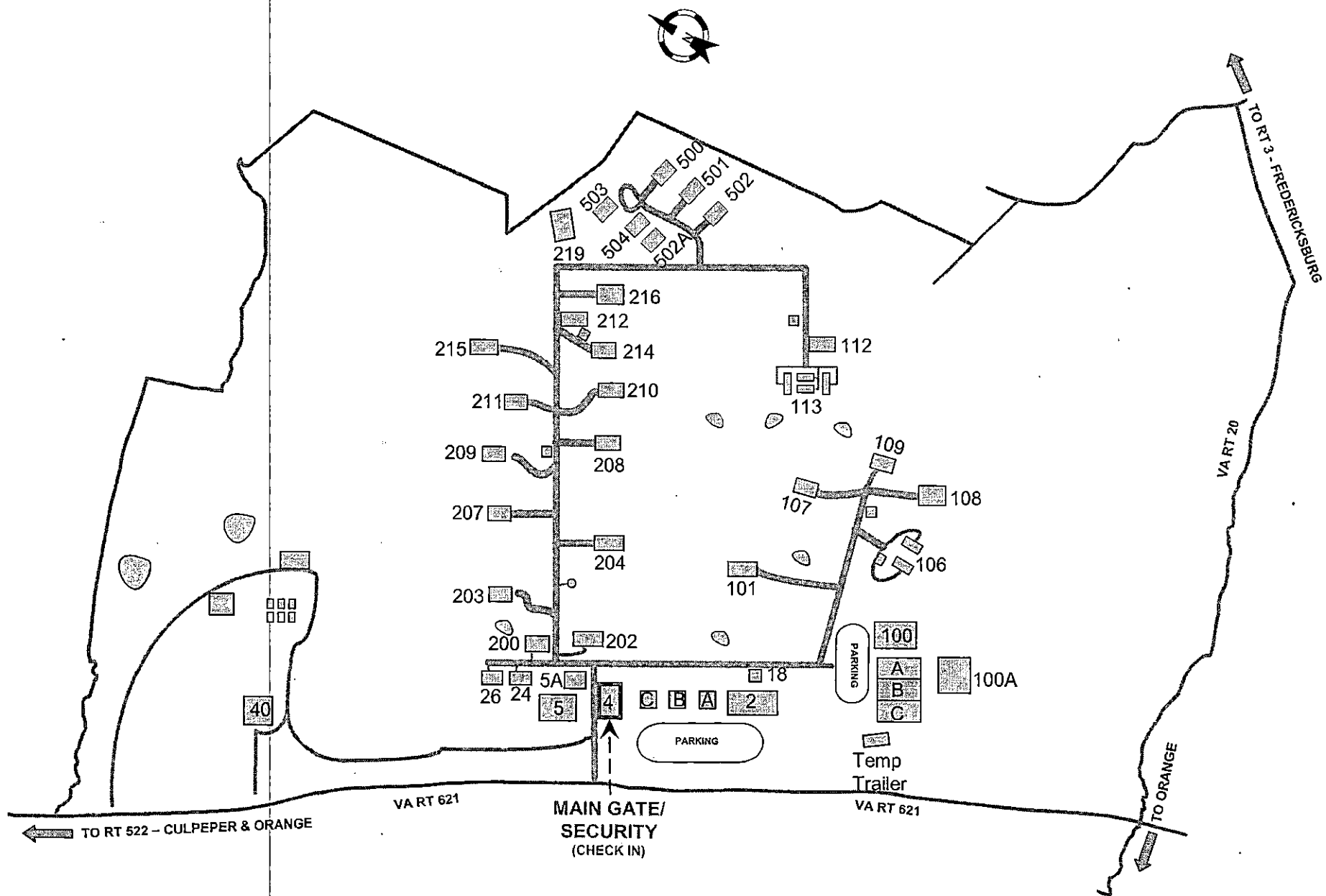
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**AEROJET**

# Orange County Facility Map



# AEROJET - ORANGE COUNTY FACILITY

## WEEKLY CHEMICAL & ENERGETIC WASTE ACCUMULATION AREA INSPECTION REPORT

INSPECTION DATE/TIME: 8-10-07 14:30

INSPECTOR (FULL NAME): J. Pata

BUILDING/AREA	MARK BOX WITH A CHECK (✓) NO DISCREPANCIES. MARK BOX WITH AN "X" IF DISCREPANCIES NOTED. EXPLAIN DISCREPANCIES ON PG. 2. CORRECTIVE ACTION FOR DISCREPANCIES ON PG. 3.						COMMENTS
	WASTE IN PROPER CONTAINER (CONTAINER/HAZARD)	CONTAINERS LABELLED PROPERLY	CONTAINERS CLOSED (LIDS/BUNGS SECURE)	CONTAINERS IN GOOD CONDITON	CONTAINMENT IN GOOD CONDITION		
2 / CM Layup Room	✓	✓	✓	✓	✓		
5 / CM (Bldg. Right Back)	✓	✓	✓	✓	✓		
24 / CWHHA*	✓	✓	✓	✓	✓		
24 / Solvent Shed 01	✓	✓	✓	✓	✓		
24/ Solvent Shed 03 **	✓	✓	✓	✓	✓		
26 / Paint Room	✓	✓	✓	✓	✓		
26 / Inert Weighout	✓	✓	✓	✓	✓		
26/Enviropak (Bldg Left)	✓	✓	✓	✓	✓		
100 / Clean Room	--- temporarily	out of service ---	✓	✓	✓		
108 / Middle Room**	--- moved to	Solvent shed 03					
109 / Main Room	✓	✓	✓	✓	✓		
112 / Energetic Pad*	✓	✓	✓	✓	✓		
112A (High Hazard)*	✓	✓	✓	✓	✓		20
112B*	✓	✓	✓	✓	✓		4.5 / 255.8
112C*	✓	✓	✓	✓	✓		196 + 90
202 (outside QC Lab)	✓	✓	✓	✓	✓		90 / 578.5
202 (outside oven room)	✓	✓	✓	✓	✓		
202 (bldg. Front)	✓	✓	✓	✓	✓		
208 / NDT Distiller Room	✓	✓	✓	✓	✓		
210 / Small-Scale Mixers	✓	✓	✓	✓	✓		
214/ Energetic Pad*	---temporarily	out of service ---	✓	✓	✓		
214/Technology Main Area	✓	✓	✓	✓	✓		
215 / Main Room	✓	✓	✓	✓	✓		
216/Enviropak (Bldg Front)	✓	✓	✓	✓	✓		
216/Enviropak (Bldg Back)	N/A						

\* Indicates <90-day Accumulation Area; all other areas are Satellite Accumulation Areas (SAAs). Note: 4 pads at 112 comprise one <90-day Accumulation Area (segregated for safety purposes).

\*\* Universal Waste Area (fluorescent light bulbs)

12348

— Weekly Inspection for all Accumulators & cooler  
Time / Afternoon

— If the gas left in look at it  
if it is not observed

**AEROJET - ORANGE COUNTY FACILITY**  
**WEEKLY CHEMICAL & ENERGETIC WASTE ACCUMULATION AREA INSPECTION REPORT**

INSPECTION DATE/TIME: 8-2-07 15:00

INSPECTOR (FULL NAME): [Signature]

BUILDING/AREA	MARK BOX WITH A CHECK (✓) NO DISCREPANCIES. MARK BOX WITH AN "X" IF DISCREPANCIES NOTED. EXPLAIN DISCREPANCIES ON PG. 2. CORRECTIVE ACTION FOR DISCREPANCIES ON PG. 3.						COMMENTS
	WASTE IN PROPER CONTAINER (CONTAINER/HAZARD)	CONTAINERS LABELLED PROPERLY	CONTAINERS CLOSED (LIDS/BUNGS SECURE)	CONTAINERS IN GOOD CONDITON	CONTAINMENT IN GOOD CONDITION		
2 / CM Layup Room	✓	✓	✓	✓	✓		
5 / CM (Bldg. Right Back)	✓	✓	✓	✓	✓		
24 / CWAHA*	✓	✓	✓	✓	✓		
24 / Solvent Shed 01	✓	✓	✓	✓	✓		
24/ Solvent Shed 03 **	✓	✓	✓	✓	✓		
26 / Paint Room	✓	✓	✓	✓	✓		
26 / Inert Weighout	✓	✓	✓	✓	✓		
26/Enviropak (Bldg Left)	✓	✓	✓	✓	✓		
100 / Clean Room	--- temporarily	out of service ---					
108 / Middle Room**	--- moved to	Solvent shed 03					
109 / Main Room	✓	✓	✓	✓	✓		
112 / Energetic Pad*	✓	✓	✓	✓	✓		
112A (High Hazard)*	✓	✓	✓	✓	✓		110
112B*	✓	✓	✓	✓	✓		2.5 / 246.8
112C*	✓	✓	✓	✓	✓		187.5 + 70.5
202 (outside QC Lab)	✓	✓	✓	✓	✓		90 / 22.5
202 (outside oven room)	✓	✓	✓	✓	✓		
202 (bldg. Front)	✓	✓	✓	✓	✓		
208 / NDT Distiller Room	✓	✓	✓	✓	✓		
210 / Small-Scale Mixers	✓	✓	✓	✓	✓		
214/ Energetic Pad*	---temporarily	out of service ---					
214/Technology Main Area	✓	✓	✓	✓	✓		
215 / Main Room	✓	✓	✓	✓	✓		
216/Enviropak (Bldg Front)	✓	✓	✓	✓	✓		
216/Enviropak (Bldg Back)	✓	✓	✓	✓	✓		

\* Indicates <90-day Accumulation Area; all other areas are Satellite Accumulation Areas (SAAs). Note: 4 pads at 112 comprise one <90-day Accumulation Area (segregated for safety purposes).

\*\* Universal Waste Area (fluorescent light bulbs)

**AEROJET - ORANGE COUNTY FACILITY**  
**WEEKLY CHEMICAL & ENERGETIC WASTE ACCUMULATION AREA INSPECTION REPORT**

INSPECTION DATE/TIME: 7.27.07 15:00

INSPECTOR (FULL NAME): J. H. A.

BUILDING/AREA	MARK BOX WITH A CHECK (✓) NO DISCREPANCIES. MARK BOX WITH AN "X" IF DISCREPANCIES NOTED. EXPLAIN DISCREPANCIES ON PG. 2. CORRECTIVE ACTION FOR DISCREPANCIES ON PG. 3.						COMMENTS
	WASTE IN PROPER CONTAINER (CONTAINER/HAZARD)	CONTAINERS LABELLED PROPERLY	CONTAINERS CLOSED (LIDS/BUNGS SECURE)	CONTAINERS IN GOOD CONDITON	CONTAINMENT IN GOOD CONDITION		
2 / CM Layup Room	✓	✓	✓	✓	✓		
5 / CM (Bldg. Right Back)	✓	✓	✓	✓	✓		
24 / CWAH*	✓	✓	✓	✓	✓		
24 / Solvent Shed 01	✓	✓	✓	✓	✓		
24/ Solvent Shed 03 **	✓	✓	✓	✓	✓		
26 / Paint Room	✓	✓	✓	✓	✓		
26 / Inert Weighout	✓	✓	✓	✓	✓		
26/Enviropak (Bldg Left)	✓	✓	✓	✓	✓		
100 / Clean Room	--- temporarily	out of service ---					
108 / Middle Room**	--- moved to	Solvent shed 03					
109 / Main Room	✓	✓	✓	✓	✓		
112 / Energetic Pad*	✓	✓	✓	✓	✓		
112A (High Hazard)*	✓	✓	✓	✓	✓		10
112B*	✓	✓	✓	✓	✓		3 / 243.8
112C*	✓	✓	✓	✓	✓		222.5
202 (outside QC Lab)	✓	✓	✓	✓	✓		90 / 22.5
202 (outside oven room)	✓	✓	✓	✓	✓		
202 (bldg. Front)	✓	✓	✓	✓	✓		
208 / NDT Distiller Room	✓	✓	✓	✓	✓		
210 / Small-Scale Mixers	✓	✓	✓	✓	✓		
214/ Energetic Pad*	---temporarily	out of service ---					
214/Technology Main Area	✓	✓	✓	✓	✓		
215 / Main Room	✓	✓	✓	✓	✓		
216/Enviropak (Bldg Front)	✓	✓	✓	✓	✓		
216/Enviropak (Bldg Back)	N/A						

596.8

\* Indicates <90-day Accumulation Area; all other areas are Satellite Accumulation Areas (SAAs). Note: 4 pads at 112 comprise one <90-day Accumulation Area (segregated for safety purposes).

\*\* Universal Waste Area (fluorescent light bulbs)

**AEROJET**

CM-10 ) 1AVa

TRAVELER NO. General Trav. 203 REV. 7 **TRAVELER**  
PART NAME Thermal Treatment (Energetic Waste) Facility Operational Procedure  
PART NO. N/A REV. N/A  
PROGRAM NAME/MARC NO. N/A  
SERIAL NO. 214A

LOT/BATCH N/A QTY N/A  
JOB ORDER/PROD REQ. NO. N/A  
ACCOUNT NO. N/A  
CDL/MDP NO. N/A

OPER NO.	OPERATION DESCRIPTION AND/OR INSPECTION CHARACTERISTICS	SOP/ PROC REV	OPERATOR/INSPECTION SIGN-OFF	DATE	QUANTITY		REMARKS
					ACC	REJ	
			<b><u>EXPIRATION DATE: THIS DOCUMENT SHALL NOT BE USED AFTER 7/31/2007</u></b>				
01	Review Post-Thermal Treatment Unit Inspection (from previous burn)	8					
02	Obtain Traveler	8	TH	6/26/07	1	-	
03	Obtain keys	8	TH	6/26/07	1	-	
05	Establish communications	8	TH	6/26/07	1	-	
07	Transport energetic waste	8	RA DO EO CW NP	6/26/07	1	-	
09	Load thermal treatment units	8	RA DO EO CW NP	6/26/07	1	-	

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11/17/06

**PROPRIETARY**

Released

**AEROJET** 11/17/06

**AEROJET**

CM-10-00TRAVb

**TRAVELER CONTINUATION SHEET**TRAVELER NO. General Trav. 203 REV. 7  
LOT NO. 214A

PART NAME:

Thermal Treatment (Energetic Waste) Facility Operational ProcedurePART NO. N/A

OPER NO.	OPERATION DESCRIPTION AND/OR INSPECTION CHARACTERISTICS	SOP/ PROC REV	OPERATOR/INSPECTION SIGN-OFF	DATE	QUANTITY		REMARKS
					ACC	REJ	
11	Ensure horn operational	8	TH	6/26/07	1	-	
13	Notify Security & Orange County	8	TH	6/26/07	1	-	
15a	Preliminary Checkout	8	RA TH	6/26/07	1	-	
15b	Prior to igniter installation	8	RA TH	6/26/07	1	-	
15c	Wire for igniters	8	RA TH	6/26/07	1	-	
15d	Perform ignition sequence	8	RA TH	6/26/07	1	-	
17	Misfire/Hangfire	8	N/A	6/26/07	1	-	"N/A" if Misfire or hangfire does not occur.
19	Inspect Post-Thermal Treatment Units	8	→ RA TH → TJP, JB	6/28/07 6/29/07	1	✓	Unit #4, Pan #21 re-ignited 6/28/07
21	Clean Thermal Treatment Pans/Ash Collection	8	CH/RA	7-11-07	1		



WARNING: DOCUMENT SUBJECT TO EXPORT RESTRICTIONS STATED ON COVER

Page 2 of 2

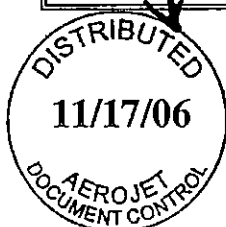
PROPRIETARY

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**AEROJET** 11/17/06

APPENDIX A  
THERMAL TREATMENT RECORD

Thermal Treatment No. 2141

DATE	STORAGE BLDG. NO. OR LOCATION	NO. OF CONTAINERS AND CONTAINERS TYPE	AMOUNT (LBS)	TYPE OF MATERIAL	THERMAL TREATMENT UNIT NO. / PAN NO.	OPERATORS FULL NAME
6/26/07	112	12 ea. Lower PAKS	1,413 lbs.	DS PW-1 & CT-1	1/1	ROSS ANDERSON CRAIG WILLIAMS
	112	5 ea. Lower PAKS		DS PW-1	1/2	DAVE OWENS ED D'NEILL
	112	6 ea. CARD BOARD Boxes	10 lbs.	DS SCT-1	1/2	NELSON PATTERSON
	112A	1 ea. Velostat Bag	22.5 lbs.	RD HH-1	2/3	
	112A	1 ea. Velostat Bag	1.0 lbs.	RD CBW-1	4/2 2/3 TH 6/26/07	
	112A	1 ea. Velostat Bag	1.5 lbs.	RD PW-1	2/3	
	112A	1 ea. Velostat Bag	0.5 lbs.	RD CT-1	2/3	
	112B	9 ea. Velostat Bags	256.8 lbs.	RD CT-1	2/3	
	112B	4 ea. Velostat Bags	77 lbs.	RD CT-3	2/3	
	112B	2 ea. Velostat Bags	40 lbs.	RD PW-3	2/3	
	112B	2 ea. Velostat Bags	75 lbs.	RD PW-1	2/3	
	112B	1 ea. Velostat Bag	25.2 lbs.	RD SCT-1	2/3	
	112B	1 ea. Velostat Bag	1.5 lbs.	RD APT-1	2/3	
	112B	1 ea. Velostat Bag	1.5 lbs.	RD SCT-3	2/3	
	112B	1 ea. Velostat Bag	15.5 lbs.	RD APT-3	2/3	
	112C	1 ea. Velostat Bag.	A-1 of 1 12 LBS	MFR CT-3	2/3	



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**AEROJET** 11/17/06

See next page

APPENDIX A  
 THERMAL TREATMENT RECORD
Thermal Treatment No. 2154

DATE	STORAGE BLDG. NO. OR LOCATION	NO. OF CONTAINERS AND CONTAINERS TYPE	AMOUNT (LBS)	TYPE OF MATERIAL	THERMAL TREATMENT UNIT NO. / PAN NO.	OPERATORS FULL NAME
6/26/07	112B	8 leverpaks	228.1	Nitrocellulose	1/3 & 4	ROSS ANDERSON CRAIG WILLIAMS
6/26/07	112B	4 leverpaks	120.0	Nitrocellulose	4/1	DAVE OWENS ED O'NEILL
6/28/07 (Reignited)						NELSON PUTNAM
6/26/07	15 gallons diesel fuel used					
6/28/07						
6/26/07	112A	Velostat Bag	0.4	IHE Tube (2) Glass Rpt (1)	4/2	✓

A-1 of 1

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 PROPRIETARY

APPENDIX B

POST-THERMAL TREATMENT UNIT INSPECTION LOG  
(to be completed after each use)

DATE/TIME: 6-29-07 1930 FULL NAME(S) OF OPERATOR(S): [Signature]

- Signs around thermal treatment units are in place and legible (Yes=✓) ✓
- Thermal treatment units have been inspected for unburned propellant (Yes=✓) ✓
- All metal rings, drum tops, metal parts, etc., have been removed and disposed of properly (Yes=✓) X
- Area around the units has been inspected for any material ejected from the units; material disposed of properly (Yes=✓) X
- Mounds have been inspected for unburnt propellant, foreign debris, evidence of erosion, evidence of intrusion (Yes=✓) ✓

SAFETY INFRARED CHECK: [Signature] DATE/TIME: 6-29-07 10950  
(Signature)

COMMENTS / CORRECTIVE ACTION (IF NECESSARY): pick debris outside pans,  
CLEAN rings & ASH out of pans

CORRECTIVE ACTION TAKEN BY (FULL NAME): \_\_\_\_\_

DATE/TIME: \_\_\_\_\_ / \_\_\_\_\_ DESCRIPTION: \_\_\_\_\_



**Attachment 2 (continued)**  
**Environmental Management System Training Plan**  
**Orange County Facility**

Training Subject	Document Reference	Objective	Frequency of Training	Trainer(s)	Employees to be Trained	Location of Documentation/ Records
Wet/Dry Building & Equipment Cleaning	MOI-2008	To insure the operators are familiar with procedures to minimize use and handling of wash water.	Initial and as needed	Environmental Department	Designated technicians	Human Resources
Department of Transportation (DOT) Hazardous Waste Training	Outline in Environmental Department	To provide instruction on shipping of hazardous waste	Every 3 years	Consultant or trained Aerojet employee	Designated technicians	Human Resources
Department of Transportation (DOT) Hazardous Material Training	Outline in Materials Department	To provide instructions on the shipping, receiving and transportation of hazardous materials; emergency response	Every 2 years	Consultant or trained Aerojet employee	Materials Department and designated personnel	Human Resources
HMX/RDX Sump Cleaning	SOP 201	To insure proper handling, transfer and disposal of wastes from sump cleaning operations	Initial and as needed	Environmental/ Production Departments	Designated technicians	Human Resources
Hot Trash Procedure	SOP 202	To insure the operators are qualified to properly handle energetic waste	Initial and as needed	Environmental/ Production Departments	Designated technicians	Human Resources
Thermal Treatment (Hot Trash) Facility Operational Procedure	SOP/ Traveler 203	To insure the operators are qualified to operate the existing thermal treatment facility and properly handle energetic waste	Initial and as needed	Safety / Environmental Departments	Thermal Treatment Operators	Human Resources
Thermal Treatment of HMX	SOP/ Traveler 204	To insure the operators are qualified to operate the existing thermal treatment facility and properly handle HMX waste	Initial and as needed	Safety / Environmental Departments	Thermal Treatment Operators	Human Resources
Propellant/Hardware Disposal (Burn-out) in Steel Cage	SOP-61	To insure the operators are qualified to operate the burn cage and properly handle energetic waste.	Initial and as needed	Safety / Environmental Departments	Thermal Treatment Operators	Human Resources

**Attachment 2 (continued)**  
**Environmental Management System Training Plan**  
**Orange County Facility**

Training Subject	Document Reference	Objective	Frequency of Training	Trainer(s)	Employees to be Trained	Location of Documentation/ Records
D5 PBCS Closure/TTF Grain Burn	MORP A0233-100H	To insure the operators are qualified to burn D5 grains at the Thermal Treatment Facility to reclaim / reuse closures.	Initial and as needed	Safety / Environmental Departments	Thermal Treatment Operators	Human Resources
Recycling and Emissions Reduction Certification (HVAC)	40 CFR Part 82 Subpart F	To meet requirements for protection of stratospheric ozone	Initial and as needed	EPA approved certification company/agency	Designated Maintenance personnel	Human Resources
Waterworks Operators License	12 VAC 5 Waterworks Regulations	To meet requirements for operation of a non-community transient waterworks	Initial, 16 continuing professional education (CPE) credits every 2 years	Commonwealth of Virginia/ approved company for CPE credits	Designated Maintenance personnel	Human Resources
Visible Emissions Evaluation (Opacity) Certification	Title V Air Permit; Condition (40 CFR Part 60)	To meet requirements for compliance with visible emissions (opacity) standard	Initial and as needed	Commonwealth of Virginia/ approved certification company/agency	Designated Environmental and Mfg. personnel	Human Resources
New uniform Hazardous Waste Manifest	Outline in Environmental Department	To insure proper use of new manifest	Initial and as needed	Environmental Department	Designated Environmental personnel	Human Resources
DOT Special Permit Authorization	Authorization in Environmental Dept.	To insure proper use of DOT authorization	Initial and as needed	Environmental Department	Designated Environmental personnel	Human Resources

ISS TRAINING

**Attachment 2**  
**Environmental Management System Training Plan**  
**Orange County Facility**

Training Subject	Document Reference	Objective	Frequency of Training	Trainer(s)	Employees to be Trained	Location of Documentation/ Records
ISO 14001 General Awareness	Section 4.4.2 of ISO 14001	To provide an overview of the EMS, including conformance with the Environmental Policy and Procedures and with the requirements of the EMS; the benefits of the EMS, employee responsibilities and consequences of departure	Initial and as needed	Environmental Department	All employees  Designated Contractors	Human Resources  Environment Department
Emergency Response Training (Hazwoper)	Outline in Safety Department	To meet requirements for operators of TSD facilities and emergency response personnel	Initial 24 hours and 8 hours annual thereafter	Environmental/ Safety Depts. or an outside consultant	Thermal Treatment Operators/Emergency Response team	Human Resources
RCRA Hazardous Waste Management Training	Outline in Environmental Department	To provide training to comply with RCRA regulations	Initial upon employment and annual thereafter	Environmental Department	All operations personnel from supervisor level down	Human Resources
Pollution Prevention/Waste Minimization Training	Outline in Environmental Department	To meet requirements of Aerojet's Stormwater Permit	Initial upon employment and annual thereafter	Environmental Department	All operations personnel from supervisor level down	Human Resources
Spill Prevention, Control and Countermeasures (SPCC)	Outline in Environmental Department	To meet requirements of EPA Oil Pollution Prevention Regulations	Initial upon employment and annual thereafter	Environmental Department	All operations personnel from supervisor level down	Human Resources
Department of Transportation (DOT) General Awareness Training	Outline in Environmental Department	To provide employees general awareness on DOT hazardous materials regulations	Initial upon employment and annual thereafter	Environmental Department	All operations personnel from supervisor level down	Human Resources
Waste Chemical Minimization and Disposal	MOI 2009	To insure the operators are familiar with waste minimization techniques and are qualified to manage the chemical wastes	Initial and as needed	Environmental Department	Designated technicians	Human Resources

**2007**

**ENVIRONMENTAL TRAINING**

**HAZARDOUS WASTE MANAGEMENT  
WASTE MINIMIZATION  
POLLUTION PREVENTION  
SPILL PREVENTION (SPCC)  
EMERGENCY/INCIDENT REPORTING  
DOT GENERAL AWARENESS  
ISO 14001 AWARENESS**

**FOR**

**AEROJET CORPORATION  
VIRGINIA OPERATIONS**

## **ENVIRONMENTAL TRAINING AGENDA**

<b>The Reasons For Environmental Training</b>	<b>1</b>
<b>RCRA/DOT Federal and State Regulations</b>	<b>2</b>
<b>DOT General Awareness</b>	<b>12</b>
<b>Spill/Incident Reporting and Prevention</b>	<b>25</b>
<b>Emergency Procedures</b>	<b>32</b>
<b>Pollution Prevention (P2)</b>	<b>33</b>
<b>Waste Minimization/Reduction</b>	<b>35</b>
<b>Storm Water Pollution Prevention</b>	<b>36</b>
<b>Spill Prevention, Control, and Countermeasures (SPCC)</b>	<b>37</b>
<b>ISO 14001</b>	<b>38</b>
<b>Key Environmental Contacts</b>	<b>41</b>

**THE REASONS FOR ENVIRONMENTAL TRAINING  
WHY ARE WE HERE?**

- O TO PROTECT HUMAN HEALTH AND THE ENVIRONMENT.**
- O IT IS REQUIRED BY LAW.**
- O TO PROTECT THE LIVELIHOOD OF THE COMPANY.**

## **RESOURCE CONSERVATION AND RECOVERY ACT (40 CFR 264.16)**

- (a)(1) "FACILITY PERSONNEL MUST SUCCESSFULLY COMPLETE A PROGRAM OF CLASSROOM INSTRUCTION OR ON-THE-JOB TRAINING THAT TEACHES THEM TO PERFORM THEIR DUTIES IN A WAY THAT ENSURES THE FACILITY'S COMPLIANCE WITH THE REQUIREMENTS OF THIS PART..."**
- (2) "...MUST INCLUDE INSTRUCTION WHICH TEACHES FACILITY PERSONNEL HAZARDOUS WASTE MANAGEMENT PROCEDURES (INCLUDING CONTINGENCY PLAN IMPLEMENTATION) RELEVANT TO THE POSITIONS IN WHICH THEY ARE EMPLOYED."**
- (3) "...THE TRAINING PROGRAM MUST BE DESIGNED TO ENSURE THAT FACILITY PERSONNEL ARE ABLE TO RESPOND EFFECTIVELY TO EMERGENCIES BY FAMILIARIZING THEM WITH EMERGENCY PROCEDURES, EMERGENCY EQUIPMENT AND EMERGENCY SYSTEMS, INCLUDING WHERE APPLICABLE:**
  - (i) PROCEDURES FOR USING AND INSPECTING FACILITY EMERGENCY AND MONITORING EQUIPMENT (REPAIR AND REPLACEMENT OF EQUIPMENT IS PERFORMED BY MAINTENANCE AND IF NEEDED SHOULD BE REPORTED TO YOUR SUPERVISOR) - THIS TRAINING TO BE PROVIDED BY YOUR SUPERVISOR.**
  - (ii) KEY PARAMETERS FOR AUTOMATIC WASTE FEED CUT-OFF SYSTEMS (NOT APPLICABLE)**
  - (iii) COMMUNICATIONS OR ALARM SYSTEMS - COVERED IN THIS TRAINING MATERIAL AND IN YOUR INITIAL SAFETY TRAINING.**
  - (iv) RESPONSE TO FIRES OR EXPLOSIONS - COVERED IN THIS TRAINING MATERIAL AND IN YOUR INITIAL SAFETY TRAINING. EVACUATION PROCEDURES FOR YOUR AREA ARE PROVIDED BY YOUR SUPERVISOR.**
  - (v) RESPONSE TO GROUND-WATER CONTAMINATION INCIDENTS - COVERED IN THIS TRAINING MATERIAL.**
  - (vi) SHUTDOWN OF OPERATIONS - THIS TRAINING TO BE PROVIDED BY YOUR SUPERVISOR.**

## **RESOURCE CONSERVATION AND RECOVERY ACT (i.e., "RCRA")**

- O REGULATES DISCHARGES INTO GROUNDWATER, SOME AIR EMISSIONS, AND GENERAL WASTE MANAGEMENT, INCLUDING SPILLS.**
- O REGULATES GENERATORS, TRANSPORTERS, AND TREATMENT, STORAGE, AND DISPOSAL FACILITIES.**

**AEROJET-ORANGE:**      **Large Quantity Generator  
Hazardous Waste Treatment Facility**

**AEROJET-CAMDEN:**      **Large Quantity Generator  
Hazardous Waste Treatment Facility**

**AEROJET-LA OPS:**      **Large Quantity Generator**

**AEROJET-UTAH:**      **Conditionally Exempt Small Quantity Generator**

## **IDENTIFICATION AND LISTING OF HAZARDOUS WASTE:**

### **O DEFINITION OF A SOLID WASTE**

**ANY SOLID, LIQUID, SEMI-SOLID OR CONTAINED GASEOUS MATERIAL THAT IS BEING DISCARDED**

### **O DEFINITION OF A HAZARDOUS WASTE**

**A SOLID WASTE THAT EXHIBITS ANY OF THE FOUR CHARACTERISTICS OF HAZARDOUS WASTE IDENTIFIED BY EPA (IGNITABLE, REACTIVE, CORROSIVE, TOXIC)**

**A SOLID WASTE THAT IS LISTED BY EPA BECAUSE OF HAZARDOUS CHARACTERISTICS AND/OR CONSTITUENTS.**

## **THE FOUR CHARACTERISTICS OF HAZARDOUS WASTE:**

- 1. IGNITABLE - FLASH POINT <60C OR 140F; IGNITABLE COMPRESSED GAS; OXIDIZER.**

**O EPA HAZARDOUS WASTE NUMBER D001**

**O EXAMPLES:**

ACETONE

MEK

AMMONIUM PERCHLORATE

METHANOL

ETHYL ALCOHOL

THF

ISOPROPYL ALCOHOL

TOLUENE

SOME ADHESIVES

SOME RESINS

METHYL HYDRAZINE

NITROGEN TETROXIDE

CHLOROSILANES

SOME PAINTS

**2. CORROSIVE - pH LESS THAN 2 OR GREATER THAN 12.5.**

**O EPA HAZARDOUS WASTE NUMBER D002**

**O EXAMPLES:**      AMMONIUM HYDROXIDE  
                             CHROMIC ACID  
                             SODIUM HYDROXIDE (CAUSTIC)  
                             METHYL HYDRAZINE  
                             HYDROCHLORIC ACID

**3. REACTIVE - NORMALLY UNSTABLE/REACTS VIOLENTLY WITH  
WATER/CAN GENERATE TOXIC GASES SUCH AS  
CYANIDES AND SULFIDES/EXPLOSIVE.**

**O EPA HAZARDOUS WASTE NUMBER D003**

**O EXAMPLES:**      ALUMINUM POWDER (WATER REACTIVE)  
                             PROPELLANT  
                             CHLOROSILANES

#### 4. TOXIC -HAZARDOUS IF ABOVE ALLOWABLE LEVELS.

o EPA HAZARDOUS WASTE NUMBER D004 THROUGH D043

o EXAMPLES:

ARSENIC	D004	LEAD	D008
BENZENE	D018	MERCURY	D009
CADMIUM	D006	PYRIDINE	D038
MEK	D035	SILVER	D011
CHLOROBENZENE	D021	TETRACHLOROETHYLENE	D039
CHROMIUM	D007	VINYL CHLORIDE	D043
HYPALON (TOXIC FOR PB)	D008	SPENT DEV/FIX (TOXIC FOR CD,CR, & AG)	D006,D007,D011

# EPA LISTS OF HAZARDOUS WASTE

ANY MATERIAL THAT COMES IN CONTACT WITH OR IS MIXED WITH AN EPA LISTED HAZARDOUS WASTE IS THEN ALSO CONSIDERED TO BE A LISTED HAZARDOUS WASTE (EPA'S "MIXTURE RULE").

## O HAZARDOUS WASTE FROM NON-SPECIFIC SOURCES

### EXAMPLES:

- |   |   |      |
|---|---|------|
| - | SPENT CHLORINATED SOLVENTS USED IN DEGREASING<br>(1,1,1-TRICHLOROETHANE, FREON, METHYLENE CHLORIDE) | F001 |
| - | SPENT CHLORINATED SOLVENTS FROM OTHER SOURCES<br>(1,1,1-TRICHLOROETHANE, FREON, METHYLENE CHLORIDE) | F002 |
| - | SPENT NON-HALOGENATED SOLVENTS (ACETONE, BUTYL ALCOHOL,<br>ETHYL ACETATE, METHANOL)                 | F003 |
| - | SPENT NON-HALOGENATED SOLVENTS (MEK, TOLUENE, PYRIDINE)   | F005 |

## **EPA LISTS OF HAZARDOUS WASTE (CONT'D)**

### **O HAZARDOUS WASTE FROM SPECIFIC SOURCES**

#### **EXAMPLES:**

- BOTTOM SEDIMENT SLUDGE FROM THE TREATMENT OF WASTEWATERS FROM WOOD PRESERVING PROCESSES K001
- WASTEWATER TREATMENT SLUDGES FROM THE MANUFACTURING AND PROCESSING OF EXPLOSIVES K044

### **O DISCARDED OR "OFF-SPEC" COMMERCIAL CHEMICAL PRODUCTS**

- NOT "SPENT" CHEMICALS
- ALSO INCLUDES SPILL RESIDUES OR CONTAMINATED SOIL, WATER, OR OTHER DEBRIS FROM A SPILL OF ANY COMMERCIAL CHEMICAL PRODUCT.

## **EPA LISTS OF HAZARDOUS WASTE (CONT'D)**

### **O DISCARDED COMMERCIAL CHEMICAL PRODUCTS, LISTED FOR TOXICITY**

- EPA HAZARDOUS WASTE NUMBER U001, ETC.

<b><u>EXAMPLES:</u></b>	<b>ACETONE</b>	<b>U002</b>	<b>TETRACHLORETHENE</b>	<b>U210</b>
	<b>CHLOROFORM</b>	<b>U004</b>	<b>PYRIDINE</b>	<b>U196</b>
	<b>DIOCTYL PHTHALATE</b>	<b>U107</b>	<b>TETRAHYDRAFURAN</b>	<b>U213</b>
	<b>ETHYL ACETATE</b>	<b>U112</b>	<b>TOLUENE</b>	<b>U226</b>

### **O DISCARDED COMMERCIAL CHEMICAL PRODUCTS, LISTED FOR ACUTE TOXICITY**

- EPA HAZARDOUS WASTE NUMBER P001, ETC.

<b><u>EXAMPLES:</u></b>	<b>AZIRIDINE</b>	<b>P054</b>	<b>BERYLLIUM POWDER</b>	<b>P015</b>
	<b>SODIUM AZIDE</b>	<b>P105</b>	<b>BARIUM CYANIDE</b>	<b>P013</b>
	<b>PHOSGENE</b>	<b>P095</b>	<b>METHYL HYDRAZINE</b>	<b>P068</b>

## **RESIDUES OF HAZARDOUS MATERIAL/WASTE IN EMPTY CONTAINERS**

### **(REQUIREMENTS FOR CONTAINER TO BE CONSIDERED NON-HAZARDOUS OR "RCRA EMPTY")**

- **USE MEANS GENERALLY PERFORMED BY INDUSTRY TO EMPTY CONTAINER AS WELL AS POSSIBLE (PUMPING, POURING, SCRAPPING, ETC.).**
- **LESS THAN ONE INCH OF RESIDUE OR 3% BY WT. OF CONTAINER CAPACITY IS PRESENT IN THE CONTAINER.**
- **COMPRESSED GAS/AEROSOLS – WHEN PRESSURE IN CAN APPROACHES ATMOSPHERIC.**
- **IF A CONTAINER HELD AN ACUTELY TOXIC HAZARDOUS WASTE ("P" CODES), IT MUST BE TRIPLE RINSED AND THE RINSATE MANAGED AS A HAZARDOUS WASTE.**

## **PACKAGING OF HAZARDOUS WASTE**

- O THE HAZARDOUS CHARACTERISTICS OF THE WASTE ARE TO BE DETERMINED.**
- O THE WASTE IS TO BE PACKAGED IN ACCORDANCE WITH APPLICABLE DEPARTMENT OF TRANSPORTATION (DOT) REGULATIONS.**

### **EXAMPLES:**

- SOLID MATERIALS IN DOT SPEC 55 GAL STEEL DRUM WITH REMOVABLE HEAD (UN 1A2)**
- LIQUID MATERIALS IN DOT SPEC 55 GAL STEEL DRUM WITH TWO BUNGHOLES (UN 1A1)**

## **MARKING OF HAZARDOUS WASTE**

- O A DOT HAZARDOUS MATERIAL LABEL IS REQUIRED ON THE WASTE CONTAINER.**
  - ALL DRUMS OF FLAMMABLE LIQUID WASTES REQUIRE A FLAMMABLE LIQUID STICKER.**
  - ALL DRUMS OF WASTE ACID OR CAUSTIC REQUIRE A CORROSIVE STICKER.**

## **LABELLING OF HAZARDOUS WASTE**

**O A HAZARDOUS WASTE LABEL IS REQUIRED ON THE WASTE CONTAINER WITH THE FOLLOWING INFORMATION:**

- **PROPER DOT SHIPPING NAME, UN/NA #, EPA WASTE #**
- **ACCUMULATION START DATE IF THE WASTE IS IN AN ACCUMULATION AREA (THE ACCUMULATION START DATE IS NOT RECORDED IF THE CONTAINER IS IN SATELLITE ACCUMULATION AND LESS THAN 55 GALLONS OF HAZARDOUS WASTE IS PRESENT)**
- **GENERATOR NAME, ADDRESS AND EPA ID #**

EXAMPLE  
HAZARDOUS WASTE LABEL

<b>HAZARDOUS WASTE</b>	
FEDERAL LAWS PROHIBIT IMPROPER DISPOSAL	
IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY AUTHORITY OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY	
GENERATOR INFORMATION:	
NAME _____	
ADDRESS _____	
CITY _____	STATE _____ ZIP _____
EPA ID NO. _____	EPA WASTE NO. _____
ACCUMULATION START DATE _____	MANIFEST DOCUMENT NO. _____
[ _____ ]	
[ _____ ]	
[ _____ ]	
D.O.T. PROPER SHIPPING NAME AND UN OR NA NO. WITH PREFIX	
<b>HANDLE WITH CARE!</b>	

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Reorder No. 433

## HAZARDOUS WASTE LABEL INFORMATION

CHEMICAL NAME	PROPER SHIPPING NAME	EPA WASTE#
Solvent-Contaminated Rags and Trash (Incl. Paints/Adhes. w/Lead)	RQ Waste Toxic Solid, Organic, N.O.S., (MEK, MeCl), 6.1, UN2811, PG III	F002/3/5 D035/38 D008
Waste Paint and Adhesives (w/Lead; In Containers)	Waste Paint Related Material, 3, UN1263, PG III	D001, D008 D035
Waste Fixer/Developer	RQ Waste Toxic Liquid, Inorganic, N.O.S., 6.1, UN3287, PG III	D011
Mixed Flammables	Waste Flammable Liquids, N.O.S., (MEK, Acetone), 3, UN1993, PG II	D001, D035 F003, F005
1,1,1-Trichloroethane (TCA)	Waste 1,1,1-Trichloroethane, 6.1, UN2831, PG III	F001, F002
Waste Propellant (D5)	Waste Propellant, Solid, 1.1C, UN 0498, PG II	D003
Asbestos Material	Asbestos, 9, NA2212, PG III	NR*

NOS - Not otherwise specified.

NR - Not regulated under RCRA as a hazardous waste.

- Regulated under DOT as a hazardous material.

## **NON RCRA-REGULATED WASTE**

- O WASTE MAY BE REGULATED BY DOT, BUT NOT BY EPA AS HAZARDOUS UNDER RCRA**
- O REQUIRES A NON-REGULATED WASTE LABEL**
  - EXAMPLES:      WASTEWATER (WASHDOWN, BOILER WATER, DISTILLER EFFLUENT, ETC.)**  
  
**ETHYLENE GLYCOL (ANTIFREEZE)**  
  
**ASBESTOS**  
  
**IPDI, DDI, DOA**  
  
**USED OIL**

EXAMPLE  
NON-REGULATED WASTE LABEL

**NON-REGULATED WASTE**

OPTIONAL INFORMATION:

SHIPPER \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY, STATE, ZIP \_\_\_\_\_

CONTENTS \_\_\_\_\_

**NON-REGULATED WASTE**

## **UNIVERSAL/MISCELLANEOUS WASTE STREAMS**

### **WASTES COLLECTED BY THE MAINTENANCE DEPARTMENT FOR OFFSITE DISPOSAL:**

- O FLUORESCENT LIGHT BULBS**
- O FLUORESCENT LIGHT BALLASTS  
(PCB & NON-PCB)**

### **TO BE COLLECTED BY THE ENVIRONMENTAL DEPARTMENT FOR OFFSITE DISPOSAL:\***

- O ELECTRONIC EQUIPMENT (COMPUTER EQUIPMENT, TYPEWRITERS, PHONES, ETC.)**
- O NICKEL-CADMIUM/LEAD ACID BATTERIES**
- O MERCURY THERMOMETERS/SWITCHES, ETC.**
- O ALKALINE/WATCH BATTERIES**
- O SMOKE DETECTORS**

**\*SUBMIT A CHEMICAL WASTE DISPOSAL REQUEST FORM (CWDRF) TO THE ENVIRONMENTAL DEPT. (ORANGE/ENVIRONMENTAL) TO HAVE MATERIAL PICKED UP FOR OFFSITE DISPOSAL.**

# CHEMICAL WASTE DISPOSAL REQUEST FORM

**AEROJET**



<b>CHEMICAL WASTE DISPOSAL REQUEST</b>						Sequence # _____	
<i>Shaded area for Environmental Dept. use</i>							
REQUESTOR: _____		PHONE: _____		COST CTR: _____		DATE: _____	
WASTE DESCRIPTION	LOCATION	TRACEABILITY INFO	QTY & CONTAINER INFO	DISPOSAL INFO	EPA WASTE CODE	ACT. DESIGNATION	
		Program _____	Total Wastes Quantity: _____		Waste Code Category: _____	Reason for Disposal Code: _____	
		Part/Stock # _____	UoM: _____				
		IR No. _____	Container Size: _____				
		DR/WD Slip No. _____	No. of Containers: _____				
		Lot No. _____	Unopened ? (Y/N) _____				
		Program _____	Total Wastes Quantity: _____		Waste Code Category: _____	Reason for Disposal Code: _____	
		Part/Stock # _____	UoM: _____				
		IR No. _____	Container Size: _____				
		DR/WD Slip No. _____	No. of Containers: _____				
		Lot No. _____	Unopened ? (Y/N) _____				
		Program _____	Total Wastes Quantity: _____		Waste Code Category: _____	Reason for Disposal Code: _____	
		Part/Stock # _____	UoM: _____				
		IR No. _____	Container Size: _____				
		DR/WD Slip No. _____	No. of Containers: _____				
		Lot No. _____	Unopened ? (Y/N) _____				

<b>WASTE CATEGORY CODES:</b> FL - Flammable Liquids RP - Resins and/or Polymers AD - Adhesives PW - Paint Wastes ML - Miscellaneous Liquids (Non-Flammable) MS - Miscellaneous Solids OT - Other (must specify): _____	<b>REASON FOR DISPOSAL CODES</b> SP - Spent / contaminated material no longer usable EX - Expired shelf life material OS - Off-specification material OB - Obsolete material (expired program) OT - Other (must specify): _____	<b>ACTIVITY DESIGNATION CODES (Environmental Dept. use only)</b> HW - Hazardous waste disposal ID - Industrial waste disposal CT - "Cold trash" RC - Recertify RV - Return to vendor OU - Obsolete matl. (expired program) MC - Mix and cure  WE - Send to "Waste Exchange" DN - Donate to laboratory/university OT - Other (must specify): _____  <b>FINAL ACTIVITY DESIGNATION:</b> _____
---	--	--

<b>GENERATOR CERTIFICATION:</b>	
I HERBY CERTIFY THAT I HAVE READ AND UNDERSTAND THESE INSTRUCTIONS AND MOI-2009 AND HAVE CONSIDERED WASTE REDUCTION OPTIONS PRIOR TO SUBMITTING THIS DISPOSAL REQUEST FORM.	
SIGNATURE: _____	DATE: _____

\* RETURN TO ENVIRONMENTAL DEPARTMENT (M/S: 100A) or Jim Berkes (jim.berkes@aerojet.com)

## CHEMICAL WASTE DISPOSAL REQUEST FORM INSTRUCTIONS

Please review and become familiar with (the revised) MOI-2009 Waste Reduction/Minimization and Disposal Procedures for Chemical Wastes, including Section 7, prior to completing this form.

All appropriate portions of the attached form must be filled out and the generator certification must be signed before pick-up/disposal can be arranged. The requestor must complete the following:

- **Waste Description:** For wastes that are generated routinely, use the appropriate standardized name provided on the back of these instructions. For other wastes, use the chemical name, if the chemical name is not known, include the trade name and number, manufacturer name, and manufacturer phone.
- **Location:** Building the material is use or waste generated.
- **Traceability Information:** Use a separate line for each different I.R. Number.
- **Quantity & Container Information:**
  - Total Waste Quantity:** Use the total quantity of waste in all containers.
  - UoM:** Use the unit of measure indicated on the I.R. card on the container.
  - Container Size:** The size of one container.
- **Disposal Information:** Use appropriate codes from bottom of form.

The Environmental Department will complete the EPA Waste Code & Activity Designation (shaded areas).

Scrapped chemicals are to be picked up at the building they were generated, not in the waste solvent sheds.

Send one copy of the completed and signed form to the appropriate department as follows:

- Orange County – Environmental Dept. – Mailbox

# **MANIFESTING OF HAZARDOUS WASTE**

## **O EPA/DOT DOCUMENT WITH AREAS FOR STATE INFORMATION**

- MANIFESTS ALLOW TRACKING OF WASTES FROM "CRADLE TO GRAVE", (i.e., from the generator to ultimate disposal, and all points in between)

## **O GENERATOR'S CERTIFICATION STATEMENT**

- WASTE ACCURATELY DESCRIBED (DOT)
- WASTE PROPERLY PACKAGED (DOT)
- WASTE REDUCTION PROGRAM IN PLACE (EPA)
- APPROPRIATE TREATMENT CHOSEN FOR WASTE (EPA)

## **O LIABILITIES ARE WITH THE GENERATOR**

## **O NOBODY OTHER THAN REPRESENTATIVES OF THE ENVIRONMENTAL DEPARTMENT ARE TO SIGN A MANIFEST**

# HAZARDOUS WASTE MANIFEST

Please print or type. (Form designed for use on 12-pitch typewriter)

Form Approved OMB No. 2050-0039

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number	
5. Generator's Name and Mailing Address		Generator's Site Address (if different than mailing address)				
Generator's Phone:						
6. Transporter 1 Company Name		U.S. EPA ID Number				
7. Transporter 2 Company Name		U.S. EPA ID Number				
8. Designated Facility Name and Site Address		U.S. EPA ID Number				
Facility's Phone:						
9a. EST	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
		No.	Type			
1.						
2.						
3.						
4.						
14. Special Handling Instructions and Additional Information						
<p><b>15. GENERATOR'S CERTIFICATION:</b> I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled, placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or 262.27(b) (if I am a small quantity generator) is true.</p>						
Generator's Signature (Printed/Typed Name)		Signature		Month Day Year		
<p>16. International Shipments: <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. <input type="checkbox"/> Postponed/Not Date leaving U.S.</p>						
17. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name		Signature		Month Day Year		
Transporter 2 Printed/Typed Name		Signature		Month Day Year		
18. Emergency Response						
<p>19a. Emergency Indication Spots: <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Release <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection</p>						
19b. Alternate Facility (or Generator)		Manifest Reference Number:		U.S. EPA ID Number		
Facility's Phone:						
19c. Signature of Alternate Facility (or Generator)		Signature		Month Day Year		
20. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)						
1.	2.	3.	4.			
21. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 19a.						
Printed/Typed Name		Signature		Month Day Year		

## **HAZARDOUS WASTE SATELLITE ACCUMULATION AREAS**

- O UP TO 55 GALLONS OF HAZARDOUS WASTE OR 1 QUART OF ACUTELY HAZARDOUS WASTE ("P" CODES) CAN BE ACCUMULATED IN SATELLITE AREAS FOR GREATER THAN 90 DAYS IF:**
- EACH CONTAINER IS LABELLED AS TO ITS CONTENTS.**
  - EACH CONTAINER IS IN GOOD CONDITION; IF FOUND TO BE LEAKING, CONTENTS ARE TRANSFERRED TO ANOTHER CONTAINER.**
  - THE CONTAINER LINER AND WASTES IN EACH CONTAINER ARE COMPATIBLE.**
  - \*THE CONTAINERS ARE ALWAYS KEPT CLOSED AND SEALED, EXCEPT DURING TRANSFERS.**

**\*In accordance with RCRA Subpart CC regulations.**

## **RCRA SUBPART CC REGULATIONS**

- O AIR STANDARDS TO REDUCE ORGANIC EMISSIONS FROM HAZARDOUS WASTE MANAGEMENT ACTIVITIES (INCLUDING ACCUMULATION) - EFFECTIVE DECEMBER 6, 1996.**
  - O APPLIES TO ANY CONTAINER USED TO ACCUMULATE HAZARDOUS WASTE WITH A DESIGN CAPACITY OF OVER 26 GALLONS.**
  - O CONTAINERS WITH A DESIGN CAPACITY OF LESS THAN 121 GALLONS (55-GALLON DRUMS):**
    - THE CONTAINER MUST BE EQUIPPED WITH A COVER AND COMPLY WITH ALL APPLICABLE DOT REGULATIONS ON THE PACKAGING OF HAZARDOUS WASTE FOR TRANSPORTATION.\***
- \* THIS MEANS THAT CONTAINERS USED TO ACCUMULATE HAZARDOUS WASTES WITH THE POTENTIAL FOR ORGANIC EMISSIONS MUST BE PLACED IN A DOT SPEC CONTAINER AND BE CLOSED AND SEALED AFTER EVERY TRANSFER OF WASTE INTO THE CONTAINER!**

## **INSPECTION OF HAZARDOUS WASTE ACCUMULATION AREAS**

- O CONTAINERS ACCUMULATING HAZARDOUS WASTES MUST BE INSPECTED AT LEAST ONE TIME PER WEEK FOR LEAKS AND DETERIORATION.**
- O THIS INSPECTION MUST BE DOCUMENTED, INCLUDING ANY PROBLEMS AND CORRECTIVE ACTIONS.**
- O WASTES CAN ONLY BE ACCUMULATED AT DESIGNATED AREAS THAT HAVE BEEN NOTIFIED TO THE STATE AND EPA.**

## **SPILL REPORTING AND PREVENTION**

### **WHO IS RESPONSIBLE?**

- o EACH EMPLOYEE IS RESPONSIBLE UNDER CERCLA/SARA ("SUPERFUND") REGULATIONS TO REPORT A SPILL OR RELEASE OF CERTAIN CHEMICALS TO THE ENVIRONMENT.**
- o IF MORE THAN THE "REPORTABLE QUANTITY" OF A REGULATED CHEMICAL IS RELEASED OUT OF A CONFINED PROCESS AREA OR DIKE ONTO THE GROUND OR INTO THE AIR, REPORTING OF THIS RELEASE MUST OCCUR AS SOON AS POSSIBLE.**
- o PROMPT INVESTIGATION AND COMMUNICATION IS NECESSARY.**

**O RELEASE MEANS ANY.....**

**SPILLING  
LEAKING  
PUMPING  
POURING  
EMITTING  
DISPOSING**

**EMPTYING  
DISCHARGING  
ESCAPING  
LEACHING  
DUMPING  
INJECTING**

**O IF THESE RELEASES ARE NOT FOLLOWED UP IN STRICT  
COMPLIANCE WITH REGULATORY GUIDELINES, ENFORCEMENT  
ACTIVITIES BY AGENCIES CAN BE EXPECTED**

- PENALTIES (FINES UP TO \$5,000 TO \$27,500 PER DAY)**
- ADMINISTRATIVE ORDERS**
- IMPRISONMENT**

**EXAMPLES OF CHEMICALS AND THEIR  
REPORTABLE QUANTITIES ("RQ'S")**

<b><u>COMPOUND</u></b>	<b><u>REPORTABLE QUANTITY (LBS)</u></b>
<b>1,1,1-TRICHLOROETHANE</b>	<b>1000</b>
<b>MERCURY</b>	<b>1</b>
<b>METHYLENE CHLORIDE</b>	<b>1000</b>
<b>METHYL ETHYL KETONE</b>	<b>5000</b>
<b>TOLUENE</b>	<b>1000</b>
<b>METHYL HYDRAZINE</b>	<b>10</b>
<b>CHLORINE</b>	<b>10</b>

## **RESPONSIBILITIES FOR REPORTING HAZARDOUS SPILLS/EMISSIONS**

- **IF YOU SEE A SPILL OR RELEASE OF ANY KIND COMING FROM ANOTHER BUILDING, NOTIFY THAT DEPARTMENT, ENVIRONMENTAL AND SAFETY IMMEDIATELY.**
- **IF A RELEASE COMES FROM YOUR AREA, IMMEDIATELY BEGIN ACTION TO CONTAIN THE RELEASE (IF THE QUANTITY IS SMALL ENOUGH TO BE HANDLED WITH SUPPLIES ON HAND) AND NOTIFY YOUR SUPERVISOR. IF THE SPILL CANNOT BE CONTAINED WITHIN YOUR AREA, NOTIFY THE APPROPRIATE SPILL RESPONSE TEAM.**
- **INVESTIGATE THE INCIDENT. DETERMINE THE AMOUNT OF CHEMICAL RELEASED.**
- **NOTIFY THE ENVIRONMENTAL DEPARTMENT SO THAT APPROPRIATE FEDERAL, STATE, OR LOCAL AUTHORITIES CAN BE CONTACTED AS REQUIRED.**
  - **COMPLETE A SAFETY/ENVIRONMENTAL INVESTIGATION REPORT (S/EIR).**
  - **THE ENVIRONMENTAL DEPT. IS RESPONSIBLE FOR ALL REPORTING REQUIREMENTS.**
- **SPILL RESIDUES MAY BE HAZARDOUS WASTE, EVEN IF "REPORTABLE QUANTITIES" ARE NOT EXCEEDED. CONTACT THE ENVIRONMENTAL DEPARTMENT FOR GUIDANCE IN REPORTING, CLEAN-UP, AND RESIDUAL DISPOSAL.**

# ~~AEROJET~~

## SAFETY/ENVIRONMENTAL INVESTIGATION REPORT (S/EIR)

PLANT DIVISION, PROJECT OR GROUP: \_\_\_\_\_ DEPARTMENT: \_\_\_\_\_  
LOCATION OF INCIDENT: \_\_\_\_\_ SHIFT OCCURRED: \_\_\_\_\_  
STATE: \_\_\_\_\_ BLDG.: \_\_\_\_\_ LINE: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

TYPE OF INCIDENT: (check more than one, if applicable)

ILLNESS: ☐ INJURY ☐ MOTOR VEHICLE OR PROPERTY DAMAGE ☐

NEAR MISS ☐ ENVIRONMENTAL INCIDENT ☐

INJURY TO NON-EMPLOYEE ☐ OTHER (specify): ☐ None \_\_\_\_\_

### COMPLETE AS APPLICABLE:

NAME OF EMPLOYEE: \_\_\_\_\_ EMPLOYEE ID# \_\_\_\_\_

EMPLOYEE POSITION: \_\_\_\_\_

DEPARTMENT: \_\_\_\_\_

NAME OF SUPERVISOR: \_\_\_\_\_ DATE/TIME NOTIFIED: \_\_\_\_\_

TO WHOM FIRST REPORTED: \_\_\_\_\_ DATE/TIME REPORTED: \_\_\_\_\_

REPORTED TO WHOM IN SAFETY/OHS: \_\_\_\_\_ DATE/TIME REPORTED: \_\_\_\_\_

DESCRIBE EMPLOYEE INJURY: \_\_\_\_\_

NATURE OF INJURY: None ACCIDENT TYPE: None

WITNESS (name, ext.): \_\_\_\_\_

DESCRIBE ENVIR. INCIDENT (briefly): \_\_\_\_\_

IF WORK RELATIONSHIP IS QUESTIONABLE, EXPLAIN:

HOW DESCRIPTION OF ACCIDENT/INCIDENT, TO INCLUDE (1) WHAT EMPLOYEE WAS DOING BEFORE THE INCIDENT (e.g. climbing ladder, transferring chemical); (2) ANY MACHINES, TOOLS, STRUCTURES, FACILITIES OR CONDITIONS INVOLVED; (3) CHEMICALS INVOLVED and (4) QUANTITY OF CHEMICALS SPILLED/RELEASED (and whether contained or released to environment).

INCIDENT

OCCURED

WHAT WHAT (UNSAFE) ACTS OF (THE INJURED OR OTHER) EMPLOYEE(S) WERE RESPONSIBLE FOR THIS ACCIDENT/INCIDENT?

WERE

THE WHAT (UNSAFE) CONDITIONS WERE RESPONSIBLE FOR THIS ACCIDENT/INCIDENT?

CAUSES

# **AEROJET**

## **SAFETY/ENVIRONMENTAL INVESTIGATION REPORT (S/EIR)**

EMPLOYEE NAME: \_\_\_\_\_

THE WHY WERE (UNSAFE) ACTS COMMITTED OR WHY DID (UNSAFE) CONDITIONS EXIST? \_\_\_\_\_

REASONS

CAUSES

EXISTED

PERSONAL WHAT PERSONAL PROTECTIVE EQUIPMENT WAS BEING USED? \_\_\_\_\_

PROTECTIVE

EQUIPMENT

CORRECTIVE WHAT ACTION WAS TAKEN FOLLOWING THE ACCIDENT/INCIDENT? \_\_\_\_\_

ACTION

REQUIRED WHAT PERMANENT ACTION SHOULD BE TAKEN TO PREVENT A SIMILAR ACCIDENT/INCIDENT? \_\_\_\_\_

SAFETY REVIEWED ACTION TAKEN WITH NOTES/COMMENTS AS FOLLOWS: \_\_\_\_\_

DEPT Signature (Safety): \_\_\_\_\_

DATE: \_\_\_\_\_

ENVIR. REVIEWED ACTION TAKEN WITH NOTES/COMMENTS AS FOLLOWS: \_\_\_\_\_

DEPT Signature (ENVIR.): \_\_\_\_\_

DATE: \_\_\_\_\_

SIGNATURES:

SUPERVISOR: \_\_\_\_\_ DATE: \_\_\_\_\_

COST CENTER MANAGER: \_\_\_\_\_ DATE: \_\_\_\_\_

OCC. HEALTH SERVICES: \_\_\_\_\_ DATE: \_\_\_\_\_

NOTE: Copies of all completed reports to be sent to the Safety Dept.,  
Envir. Dept., and Occ. Health Services and the appropriate operations manager.

## **FIRES:**

- **EXIT THE BUILDING BY THE CLOSEST EXIT/RUN-THROUGH PANEL AND ACTIVATE THE BUILDING'S ALARM SYSTEM UPON EXITING.**
- **PROCEED TO NEAREST PHONE, IMPLEMENT THE PLANT EMERGENCY RESPONSE PLAN.**
- **FIRES AT ANY STAGE ARE CAUSE FOR EVACUATION - CALL FOR EMERGENCY RESPONSE.**
- **FIRES WILL CAUSE CHLORINATED SOLVENTS (e.g., 111-TRICHLOROETHANE, METHYLENE CHLORIDE) TO EMIT NOXIOUS FUMES.**

# **EMERGENCY PROCEDURES**

- O REFER TO APPROPRIATE AEROJET EMERGENCY PROCEDURES/CONTINGENCY PLAN**
- O EMERGENCY PHONE NUMBERS:**
  - o ORANGE - 2222**
- O UPON ENTERING A BUILDING OR WORK AREA, OBSERVE EVACUATION PLANS FOR THE LOCATION OF ALL EMERGENCY EXITS, RUN-THROUGH PANELS, AND EVACUATION MEETING POINT(S).**
- O UPON OBSERVATION OF AN ACCIDENT OR OTHER EMERGENCY SITUATION, IMMEDIATELY IMPLEMENT THE PLANT EMERGENCY PROCEDURES/CONTINGENCY PLAN.**

## **POLLUTION PREVENTION ("P2")**

**"Pollution Prevention", or "P2", is a cross-media approach with the goal of maximum feasible reduction in pollution (reduction of emissions/releases of hazardous materials to all media).**

**For example:**

- **Ozone Depleting Chemicals (ODCs), such as Freon and TCA, can no longer be manufactured in the U.S. as a result of a Presidential Order that became effective on December 1995.**
- **"EPA 17", is a list of 17 specific hazardous chemicals/compounds targeted by EPA for voluntary reductions in emissions by industry (e.g., MEK, Methylene Chloride, Chromium, Lead).**
- **Chlorinated Solvents used in degreasing operations were targeted by a recent federal air regulation requiring maximum achievable control technology (MACT) if their use is not eliminated.**
- **Organic Hazardous Air Pollutants (HAPs) and Volatile Organic Compounds (VOCs) in use by the aerospace industry in hand-wipe cleaning and painting operations were specifically targeted by a new federal air regulation requiring MACT if their use is not eliminated.**

## **POLLUTION PREVENTION (continued)**

**P2 is also reflected in DoD standards and aerospace industry guidelines:**

- **NATIONAL AEROSPACE STANDARD (NAS) 411: HAZARDOUS MATERIALS MANAGEMENT PROGRAM (HMMP)**

**The benefits of a P2 program include:**

- **Reduced operating costs (e.g., materials, waste management)**
- **Increased environmental compliance**
- **Enhanced public image**
- **Reduced liability (e.g., cleanups, civil suits)**

## **WASTE MINIMIZATION/REDUCTION**

### **"MINIMIZE VS. MANAGE"**

- O WASTE REDUCTION IS THE RESPONSIBILITY OF ALL WORKERS AND MANAGERS INVOLVED IN PRODUCTION, NOT JUST OF THOSE WHO DEAL WITH POLLUTION CONTROL AND COMPLIANCE.**
- O IDENTIFY WAYS IN WHICH WASTE REDUCTION COULD BE PRACTICED IN YOUR WORK AREA.**
- O AREAS WHERE WE NEED TO FOCUS WASTE REDUCTION EFFORTS:**
  - WATER USAGE IN WASHDOWNS AT ENERGETIC BUILDINGS**
  - QUANTITIES OF CHEMICALS (OFTEN NEVER USED) THAT REQUIRE DISPOSAL AS DISCARDED, OUT-OF-DATE, OR OFF-SPEC MATERIAL**
  - WASTE PROPELLANT AND ENERGETIC MATERIALS**
  - ELIMINATION OF CHLORINATED SOLVENT USAGE AND REDUCTION IN OTHER SOLVENTS**
- O REPORT YOUR SUGGESTIONS FOR WASTE MINIMIZATION TO YOUR SUPERVISOR OR TO THE ENVIRONMENTAL DEPARTMENT.**

# **STORM WATER POLLUTION PREVENTION**

**REQUIRED FOR COMPLIANCE WITH VPDES GENERAL STORMWATER & SURFACE WATER DISCHARGE PERMITS.**

## **POTENTIAL STORM WATER POLLUTANT SOURCES:**

- O FACILITY DRAINAGE**
  - MATERIAL HANDLING/STORAGE IN AREAS EXPOSED TO STORM WATER**
  - SPILLS AND LEAKS**

## **MEASURES AND CONTROLS:**

- |  |                                 |
|--|---------------------------------|
| <b>O GOOD HOUSEKEEPING</b>             | <b>O PREVENTIVE MAINTENANCE</b> |
| <b>O SPILL PREVENTION AND RESPONSE</b> | <b>O INSPECTIONS</b>            |
| <b>O EMPLOYEE TRAINING</b>             | <b>O MANAGEMENT OF RUNOFF</b>   |

## **SITE COMPLIANCE EVALUATION PROGRAM:**

- ANNUAL INSPECTION TO IDENTIFY AND IMPLEMENT PHYSICAL AND PROCEDURAL CHANGES TO PREVENT POTENTIAL POLLUTION SOURCES**

## **(SPCC)**

### **SPILL PREVENTION, CONTROL, AND COUNTERMEASURES PLAN**

- O DEVELOPED FOR COMPLIANCE WITH THE FEDERAL WATER POLLUTION CONTROL ACT (FWPCA). AN SPCC PLAN HAS BEEN DEVELOPED BECAUSE OF THE BULK STORAGE OF FUELS.**
- O THE REGULATIONS WERE DEVELOPED TO PREVENT DISCHARGES OF OIL INTO NAVIGABLE WATERS OF THE UNITED STATES.**
- O NAVIGABLE WATERS INCLUDE LAKES, RIVERS, STREAMS, INTERMITTENT STREAMS, MUD FLATS, AND WETLANDS.**
- O DISCHARGES OF "HARMFUL QUANTITIES" MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER (ALL REPORTING TO BE CONDUCTED BY ENVIRONMENTAL DEPT.)**
- O "HARMFUL QUANTITIES" INCLUDE THOSE THAT VIOLATE APPLICABLE WATER QUALITY STANDARDS, OR CAUSE A FILM, SHEEN, OR DISCOLORATION OF THE SURFACE OF THE WATER.**
- O SPCC PLANS IDENTIFY POTENTIAL SPILL VOLUMES, DRAINAGE, PREVENTION, AND CONTROL OF SPILLS FROM ABOVEGROUND AND UNDERGROUND STORAGE TANKS, PIPES, AND VALVES.**

# **ISO 14001**

## **ENVIRONMENTAL MANAGEMENT SYSTEMS**

**A SYSTEMATIC WAY OF MANAGING AN ORGANIZATION'S ENVIRONMENTAL AFFAIRS**

### **ISO 14001 KEY ELEMENTS:**

**POLICY STATEMENT  
DEVELOP OBJECTIVES AND TARGETS  
TRAINING**

**ID ASPECTS AND IMPACTS  
IMPLEMENT PLAN  
MANAGEMENT REVIEW**

### **ASPECTS AND IMPACTS:**

#### **ASPECTS**

**WASTE LAND DISPOSAL  
WASTE INCINERATION  
SPILLS AND LEAKS  
ELECTRICITY CONSUMPTION  
RECYCLING**

#### **IMPACTS**

**DECREASED LANDFILL SPACE  
DEGRADATION OF AIR QUALITY  
SOIL AND GROUNDWATER CONTAM.  
AIR POLLUTION  
CONSERVE OF NATURAL RESOURCES**

# **AEROJET – VIRGINIA OPERATIONS** **ENVIRONMENTAL POLICY**

**We are committed to:**

- (1) Compliance with applicable environmental legislation and regulations and with other requirements to which we subscribe,**
- (2) Continuous improvement in our environmental management; and**
- (3) Pollution prevention in all of our business activities.**

# **KEY ENVIRONMENTAL CONTACTS**

## **AEROJET CORPORATION**

### **ORANGE COUNTY:**

<b>TIM HOLDEN</b>	<b>ENVIRONMENTAL MANAGER</b>	<b>540-854-2037</b> <b>PAGER – 540-399-2466</b> <b>RADIO – Unit #70</b>
<b>JIM BERKES</b>	<b>SR. ENVIRONMENTAL ENGINEER</b>	<b>540-854-2124</b> <b>RADIO – Unit #71</b>
<b>TIM PATTON</b>	<b>SENIOR HAZ WASTE CONTROL TECH.</b>	<b>540-854-2041</b> <b>PAGER – 540-399-2437</b> <b>RADIO - Unit #72</b>
<b>ROBERT PAYNE</b>	<b>SAFETY MANAGER</b>	<b>540-854-2219</b> <b>PAGER – 540-399-8374</b> <b>RADIO – Unit #60</b>
<b>ROGER SNYDER</b>	<b>DIRECTOR OF OPERATIONS</b>	<b>540-854-2012</b> <b>PAGER - 866-950-0282</b> <b>RADIO – Unit #2</b>

### **CAMDEN:**

<b>TERRY LEONARD</b>	<b>SAFETY &amp; ENVIRONMENTAL DIRECTOR</b>	<b>870-574-3396</b> <b>CELL – 870-833-0167</b>
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2007  
SPCC Training Program  
Aerojet Corporation – Orange County Facility

(1). INTRODUCTION TO THE SPCC PLAN

Aerojet has developed and implemented a Spill Prevention, Control, and Countermeasure (SPCC) Plan for the Orange County facility. The purpose of the Plan is to provide guidance and establish procedures, measures, equipment, and other provisions for preventing the discharge of oil in “harmful quantities” from the site into or upon the “navigable waters of the United States” or adjoining shorelines. The SPCC Plan is intended to fulfill the applicable requirements of the Oil Pollution Prevention provisions (40 CFR Part (§) 112). The EPA administers these rules. Aerojet is subject the SPCC regulations for the following reasons:

- The company stores, handles and uses gasoline, diesel fuel, hydraulic oil and similar petroleum products that meet the regulatory definition of “oil.”
- The oil storage capacity of the Orange County facility (including drums) exceeds the 1,320-gallon regulatory threshold.
- Due to the plant’s location, there is a (limited) possibility that a spill or release of an oil product could result in a discharge of oil in a “harmful quantity” into Mountain Run or other nearby surface waters.

The regulated equipment at the Orange County facility consists of the following:

- 1,000-Gallon Gasoline Tank at Gate #1
- 1,000-Gallon Diesel Fuel Tank at Gate #1
- 300-Gallon Diesel Fuel Tank at Pump House (Building #18)
- 500-Gallon Diesel Fuel Tank at Building #204
- Diesel-Powered Water Pump at Pump House (Building #18)
- Diesel-Powered Emergency Generators at Buildings #204 and #107
- Drum Storage areas at Buildings #5, #24, #106, #107, Pump House and Pole Barn
- Press Machines at Building #5
- Electric Power Transformers (any “wet” transformers located throughout Plant)

Robert Payne, Senior Safety Engineer, is designated as the SPCC Plan Coordinator for the Orange County facility. He is responsible for implementation and maintenance of the Plan, and for reporting to Aerojet corporate management. Mr. Payne serves as the primary Emergency Response Coordinator for the plant.

Timothy Holden, Environmental Manager, is designated as the alternate SPCC Plan Coordinator for the Orange County facility. He also serves as the alternate Emergency Response Coordinator.

(2). CONTENTS OF THE SPCC PLAN

The contents of the SPCC Plan for the Orange County facility are summarized below:

- Section 1.0 (Introduction) describes the purpose of the document, the applicable regulations, and the procedures of updating the Plan.
- Section 2.0 (Spill Prevention and Control Measures) discusses the facility operations, oil storage and handling areas, drainage patterns, secondary containment and diversionary structures, and the history of spills at the site.
- Section 3.0 (Potential for Oil Spills) describes the possible sources of oil spills.
- Section 4.0 (Spill Response Procedures) discusses the procedures, equipment and notification requirements for responding to a release of petroleum products.
- Section 5.0 (Inspections and Tests) describes the facility's visual inspection program and the mechanical integrity-testing program for the bulk storage tanks.
- Section 6.0 (Personnel Training) discusses Aerojet's SPCC-related training program.
- Section 7.0 (Facility Security) describes the security measures taken to prevent accidental and intentional releases of oil.
- The Plan also includes a series of appendices. Most importantly, the Oil Spill Contingency Plan for the site is presented in Appendix A.

The initial SPCC Plan for the Orange County facility was developed in the early 1990's. The document was most recently updated in April 2007. New EPA requirements for spill prevention and control were incorporated within the Plan.

(3). APPLICABLE FEDERAL AND STATE POLLUTION CONTROL REGULATIONS

The EPA's regulatory requirements for SPCC Plans are established in the Oil Pollution Prevention provisions (40 CFR §112).

Associated EPA regulations include the Discharge of Oil rules (§110) and the provisions for Oil Removal Contingency Plans (§109).

The Virginia Department of Environmental Quality (VDEQ) also has its own SPCC provisions (9-VAC 25-91-10 *et seq*). In general, the Department's regulations are identical to the EPA's provisions (§112). The VDEQ also has certain State-specific requirements. However, these items are not applicable to Aerojet because the oil storage capacity of the Orange County facility (less than 8,000 gallons total) does not exceed the applicable regulatory threshold (12,000 gallons minimum).

(4). APPROPRIATE UNLOADING AND LOADING PROCEDURES

Bulk deliveries of gasoline and diesel fuel are one of the most significant potential sources of a spill or release at the Orange County facility. The SPCC Plan includes a discussion of proper fuel unloading procedures. These practices are described below:

- (1). When a tank truck arrives, Aerojet Maintenance personnel should escort the vehicle to the appropriate storage tank.
- (2). The empty unit should then be "stick tested" to determine how much fuel the vessel will hold.
- (3). The wheels of the truck should be chocked to prevent movement.
- (4). A Maintenance employee should place a portable catch basin under the fill hose to help capture any leakage (catch basin stored at gasoline and diesel tanks near Gate #1).
- (5). The appropriate amount of gasoline or diesel fuel should then be unloaded into the storage vessel.
- (6). A Maintenance employee should monitor the delivery operation to ensure that no releases of petroleum occur.
- (7). Upon completion of the unloading process, the operator should inspect the valves of the delivery vehicle for tightness and leaks prior to its departure.
- (8). The tank truck should then be escorted off-site.

(5). OBSERVANCE OF LEAKS, SPILLS AND RELEASES AS A PART OF ROUTINE DAILY ACTIVITIES

The SPCC Plan includes a visual inspection program for the oil storage tanks, drum storage areas and oil-filled equipment at the Orange County facility. All plant employees should watch for signs of leaks and spills as a part of their daily activities. The inspection program is described below:

- On a routine daily basis during normal working hours, plant personnel should visually observe the condition of the fuel storage tanks, drum storage areas, pumps, piping and valves, other oil storage and handling equipment, and secondary containment areas.
- Aerojet employees should look for signs of drips, corrosion, and fatigue that could indicate the potential for leaks.
- Similar observations should be made during the delivery of oil products.
- All signs of leakage or potential leakage must be reported to the SPCC Plan Coordinator and/or their Area Supervisor.
- The daily visual inspections will not ordinarily be documented. However, any significant findings must be recorded on the appropriate form.

(6). OIL SPILL CONTINGENCY PLAN (APPENDIX A OF THE PLAN)

Aerojet has developed and implemented a detailed Oil Spill Contingency Plan for the Orange County plant. It is an integral part of the SPCC Plan. The objectives of the Contingency Plan are as follows:

- To prevent an oil spill from reaching navigable waters (Mountain Run or other nearby surface waters).
- To minimize the extent of the spill if it does reach navigable waters.
- To obtain outside assistance (if required) to help with the spill response, clean up of the released material, and/or disposal of the waste oil and spill debris.
- To notify the appropriate government and regulatory agencies, and to solicit advice and assistance for the spill clean up.

The Oil Spill Contingency Plan provides detailed guidance on each of the aforementioned subjects.

(7). CORRECT AND TIMELY SPILL REPORTING PROCEDURES

The SPCC Plan included a discussion of the countermeasures to be used during an oil spill at the Orange County facility. These procedures are designed to contain the release as soon as possible and thereby prevent the oil from reaching a water body. Provisions for notifying the appropriate government agencies are also discussed in the Plan.

Immediate Actions: In the event of an oil spill incident, regardless of size or scope, at any location at the Orange County facility, it is the responsibility of the individual who discovers the spill to do the following:

- (1). Take appropriate immediate action to halt or contain the spill by shutting off pumps, closing valves, positioning containers to collect the oil, or positioning absorbent materials to absorb, divert, or contain the spilled product, or to take other appropriate action without jeopardizing the safety of the person(s) performing such actions. The primary objectives are to locate the source of the spill and either stop or contain the spill immediately.
- (2). Notify the appropriate supervisor at the time of the spill incident. The supervisor who is informed should then contact the appropriate plant emergency response personnel.

Response Procedures: The procedures to be followed in the event of an oil spill or release are listed below:

- (1). Locate the source of the spill.
- (2). Stop and/or contain the spill or leak, if possible.
- (3). Notify the primary Emergency Response Coordinator, the alternate Emergency Coordinator and/or the Security Department.
- (4). Determine if outside assistance is required (the Response Coordinator should make this determination).
- (5). Clean up the spill and affected areas.
- (6). Handle and dispose of the waste oil and spill debris properly.
- (7). Provide pertinent information to the appropriate regulatory agencies and prepare detailed records for internal purposes.

Emergency Contacts: An employee who discovers a spill or release of oil must notify their supervisor and then one of the following Aerojet personnel immediately:

- Robert Payne – Senior Safety Engineer – SPCC Plan Coordinator and Emergency Response Coordinator
- Timothy Holden – Environmental Manager – Alternate Coordinator
- Security Department

(8). PERIODIC SITE INSPECTIONS

The SPCC Plan includes an inspection program for the oil storage tanks, drum storage areas and oil-filled equipment at the Orange County facility. The periodic inspections are intended to identify conditions that could lead to a spill or release of a petroleum product. Monthly and annual inspections are required. “Immediate attention inspections” are also necessary under certain circumstances.

Monthly Inspections: The SPCC Plan Coordinator or his designee will conduct monthly visual inspections of the following items (Maintenance to conduct all tank-related inspections):

- The gasoline and diesel fuel storage tanks (located near Gate #1) will be inspected monthly for signs of any leaks or spilled materials. The units will also be visually inspected to confirm that the vessels are in good general condition.
- The diesel fuel storage tanks for the emergency water pump (Building #18) and emergency generators (Buildings #204 and #107) will be visually inspected once per month for leaks, any spilled material, and to confirm the good condition of the vessels. The water pump and generators will also be visually inspected.
- The drum storage areas (located throughout the plant) will be inspected monthly for signs of leakage, spilled materials, the integrity of the containers, general housekeeping, and the orderly arrangement of the drums. The inspector will also verify the condition of each container (i.e., no ruptures, no leaking bungs, no signs of corrosion or damage, etc.).
- The press machines (located at Building #5) will be visually inspected once per month for leaks or spills, the integrity of the hydraulic reservoirs, and general housekeeping.

The monthly visual inspections will be more comprehensive than the visual observations performed on a routine daily basis by plant personnel. The monthly inspections will be documented on the appropriate inspection form, including any comments and/or corrective actions required.

Yearly Inspections: The SPCC Plan Coordinator or his designee will conduct and document the following inspections on an annual basis (Maintenance to conduct all tank-related inspections):

- A walk-around visual inspection will be performed to check for proper drainage around the container areas.
- For the bulk petroleum storage tanks, the o-rings or gaskets for the emergency vents will be visually inspected for wear or damage (where applicable).

- Each bulk fuel tank will be visually inspected for damage or deterioration. If necessary, the container supports should be repainted.
- The tank foundations will be visually inspected for signs of settlement, cracking, pitting, and spalling. The anchor bolts will be visually inspected for distortion or significant cracking.

The annual visual inspections will be more comprehensive than the monthly inspections, and will be documented on the appropriate inspection form.

Immediate Attention Inspections: Certain circumstances may warrant an immediate inspection of a petroleum storage tank or container:

- A tank is to be taken out of service immediately (within 24 hours) if a leak is found in the vessel at any time. The unit must be repaired or replaced before being returned to service. The manufacturer should be consulted prior to making any alterations or repairs to the tank.
- If the storage tank has been exposed to fire or other circumstances that could possibly cause damage, then the vessel must be inspected for serviceability and leaks prior to being put back into service. Any required corrections and/or repairs should be made before the unit is returned to service. Again, the tank manufacturer should be consulted prior to making any alterations or repairs.

(9). SECURITY MEASURES

The SPCC Plan addresses various security considerations at the Orange County facility. These regulatory requirements are intended to prevent unauthorized entry to the site, and thereby minimize the possibility of an accidental or intentional release of oil or other hazardous material. The security measures employed at the facility include the following:

- Security fencing.
- Control of access to plant.
- Locked unloading and transfer valves and pump controls (where applicable).
- Adequate outdoor lighting.
- Visitors and vehicles are escorted when on-site.

Aerojet Corporation – Orange County Facility – Record of 10-Year Mechanical Integrity SPCC Inspections

Date of Inspection:	
Inspected By:	

Unit	Location	Perform Ultrasonic Testing or Visual Examination of Interior of Tank if Manway Present	Perform ASTM G 158 – Method C or Ultrasonic Testing of Tank if No Manway Present	Have Qualified Tank Inspector Pressure Test Tank for Tightness (Optional)
Gasoline Tank (A1 – 1,000 Gallons)	Gate #1		–	
Diesel Fuel Tank (A2 – 1,000 Gallons)	Gate #1		–	
Diesel Fuel Tank (A3 – 300 Gallons)	Pump House	–		
Diesel Fuel Tank (A4 – 500 Gallons)	Bldg. #204	–		
Diesel Fuel Tank (A5 – 5 Gallons)	Bldg. #107	–		

List Any Comments and/or Corrective Actions Required:	
Person Responsible for Follow-Up Action:	
Date Follow-Up Action Completed:	

Aerojet Corporation – Orange County Facility – Record of Annual Visual SPCC Inspections

Date of Inspection:	
Inspected By:	

Unit	Location	Inspect O-Ring or Gasket on Vent	Inspect Tank Foundation and Anchor Bolts for Wear or Damage	Inspect Containment Area for Wear, Damage or Leaks	Inspect Drainage Area Around Unit for Signs of Spills or Leaks
Gasoline Tank (A1 – 1,000 Gallons)	Gate #1				
Diesel Fuel Tank (A2 – 1,000 Gallons)	Gate #1				
Diesel Fuel Tank (A3 – 300 Gallons)	Pump House				
Emergency Water Pump	Pump House	—	—		
Diesel Fuel Tank (A4 – 500 Gallons)	Bldg. #204			—	
Emergency Generator #1	Bldg. #204	—	—	—	
Diesel Fuel Tank (A5 – 5 Gallons)	Bldg. #107			—	
Emergency Generator #2	Bldg. #107	—	—	—	

List Any Comments and/or Corrective Actions Required:	
Person Responsible for Follow-Up Action:	
Date Follow-Up Action Completed:	

Aerojet Corporation – Orange County Facility – Record of Monthly Visual SPCC Inspections

Date of Inspection:	
Inspected By:	

Unit	Location	Inspect Drums or Equipment for Signs of Leaks or Spills	Inspect Drums or Equipment for Wear or Damage	Inspect Containment for Signs of Leaks or Spills	Inspect Area for Good Housekeeping
Drum Storage Areas (5A and B)	Bldg. #5				
Drum Staging Area	Bldg. #5				
Drum Storage Area (18A)	Bldg. #18				
Drum Storage Areas (24A through D)	Bldg. #24				
Drum Storage Area (106A)	Bldg. #106				
Drum Storage Area (107A)	Bldg. #107				
Drum Storage Area (PB)	Pole Barn				
Press Machine #1	Bldg. #5			—	
Press Machine #2	Bldg. #5			—	

List Any Comments and/or Corrective Actions Required:	
Person Responsible for Follow-Up Action:	
Date Follow-Up Action Completed:	

Aerojet Corporation – Orange County Facility – Record of Monthly Visual SPCC Inspections

Date of Inspection:	
Inspected By:	

Unit	Location	Inspect Tank, Piping and Valves for Signs of Leaks or Spills	Inspect Tank or Equipment for Wear or Damage	Inspect Containment Area for Signs of Leaks or Spills	Inspect Area for Good Housekeeping
Gasoline Tank (A1 – 1,000 Gallons)	Gate #1				
Diesel Fuel Tank (A2 – 1,000 Gallons)	Gate #1				
Diesel Fuel Tank (A3 – 300 Gallons)	Pump House				
Emergency Water Pump	Pump House			—	
Diesel Fuel Tank (A4 – 500 Gallons)	Bldg. #204			—	
Emergency Generator #1	Bldg. #204			—	
Diesel Fuel Tank (A5 – 5 Gallons)	Bldg. #107			—	
Emergency Generator #2	Bldg. #107			—	

List Any Comments and/or Corrective Actions Required:	
Person Responsible for Follow-Up Action:	
Date Follow-Up Action Completed:	

# Aerojet Corporation – Orange County Facility – Record of Potential Problem Observed During Daily Activities

Date of Observation:	
Reported By:	

Location:	
Describe Potential Problem:	

List Any Corrective Actions Required:	
Person Responsible for Follow-Up Action:	
Date Follow-Up Action Completed:	

**REVIEW OF ENVIRONMENTAL INCIDENTS, EXCURSIONS, AND NEAR MISSES  
AT ORANGE FACILITY (2006)**

- **One regulatory inspection in 2006 with alleged violations that were resolved (13+ years with no violations)**
  1. **Hazardous waste inspection by VDEQ with more stringent interpretation of air monitoring/reporting requirements under EPA RD&D permit – 5/11/06 & 5/24/06**
- **Eight (8) non-reportable environmental incidents and one near miss (SEIRs completed); also one excursion during weekly inspections of hazardous waste areas (C/A report completed).**
  - **Three (3) small spills/releases of glycol/fuel/oil from equipment:**
    1. **Glycol spill from vehicle radiator during change-out behind B5 (Maintenance) – 1/6/06**
    2. **Gas spill while filling vehicle at fuel tank (Maintenance) – 1/9/06**
    3. **Hydraulic oil spill from broken line on forklift at B106 (Test) – 11/20/06**
  - **Three (3) small spills/releases of misc. chemicals/solvents:**
    1. **AP/white crystals released to floor from draining of cloth chute from grinder at B209 (Mfg) – 1/6/06**
    2. **Monochlorobenzene (MCB) reagent spill at B216 lab resulting in evacuation (Technology) – 2/20/06**
    3. **IPDI spill at B210 resulting in evacuation (Technology) – 2/21/06**
  - **Small mercury spill from dropped manometer at B5 Gauge Lab (Quality) – 8/16/06**
  - **RCRA metal-contaminated propellant waste in hot trash not properly segregated at B112 (Technology) – 2/10/06**
  - **Near Miss: Left sink on at end of day flooding floor with water at B210 (Technology) – 9/8/06**
  - **EXC: Hazardous waste container (hot trash) did not have accumulation start date on label at B112A (Technology) – 12/18/06**
- **See charts for trends from 2003 to 2006 (i.e., incidents per year, materials involved, areas involved).**

Received 06/11/07 03

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number VAD981112618	2. Page 1 of 1	3. Emergency Response Phone 1 800 274 5262	4. Manifest Tracking Number <b>001181407 FLE</b>		
Generator's Name and Mailing Address <b>AEROJET-GENERAL CORPORATION 7499 PINE STAKE ROAD CULPEPER VA 22701</b>			Generator's Site Address (if different than mailing address) <b>AEROJET ATTN: JIM BERKES 7499 PINE STAKE RD CULPEPER VA 22701</b>				
Generator's Phone: (540) 854-2124 ATTN: JIM BERKES			U.S. EPA ID Number OH D 0 4 2 3 1 1 2 0 9				
6. Transporter 1 Company Name <b>ASHLAND INC.</b>			U.S. EPA ID Number				
7. Transporter 2 Company Name			U.S. EPA ID Number				
8. Designated Facility Name and Site Address <b>ASHLAND INC. 3930 GLENWOOD DRIVE CHARLOTTE NC 28208</b>			U.S. EPA ID Number NC D 0 6 1 2 6 3 3 1 5				
Facility's Phone: (704) 391-5892							
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	X	1. HAZARDOUS WASTE, SOLID, N.O.S. (METHYL ETHYL KETONE, METHYLENE CHLORIDE) 9, NA3077, PGIII	001	DM	200		D008 D035 D038 F002 F003 F005
	X	2. HAZARDOUS WASTE, SOLID, N.O.S. (F002, F005) 9, NA3077, PGIII	002	DM	400		F002 F005
	X	3. WASTE/TOXIC LIQUID, INORGANIC, N.O.S. (SILVER) 6.1, UN3287, PGIII	002	DF	900		D011
		4.					
Special Handling Instructions and Additional Information 5178 RAGS/IRASH/DEBRIS IM CMN# 48482, 95-5176 THERMAL PAN RESIDUE IM RCI# A955176ND, 95-5177 PHOTOPROCESSING CHEMICAL IF ENW#C4900, 502126							
<b>PLACARDS OFFERED, LOAD SECURED</b>							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Officer's Printed/Typed Name <b>JAMES BERKES</b>			Signature <i>James Berkes</i>		Month Day Year <b>05 29 07</b>		
TRANSPORTER	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit: Date leaving U.S.:				
	Transporter signature (for exports only):						
	17. Transporter Acknowledgment of Receipt of Materials						
	Transporter 1 Printed/Typed Name <b>Carl J Sneed</b>		Signature <i>Carl J Sneed</i>		Month Day Year <b>05 29 07</b>		
	Transporter 2 Printed/Typed Name		Signature		Month Day Year		
DESIGNATED FACILITY	18. Discrepancy						
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection						
	Manifest Reference Number:						
	18b. Alternate Facility (or Generator) U.S. EPA ID Number						
	Facility's Phone:						
	18c. Signature of Alternate Facility (or Generator) Month Day Year						
Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
	1. H/41		2. H/41		3. H/41		4.
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name <b>FRANK P. VINTON</b>			Signature <i>Frank P. Vinton</i>		Month Day Year <b>05 31 07</b>		

# Ashland Land Disposal Restriction Form

## Generator Information:

EPA ID #: VAD981112618

\*AEROJET-GENERAL

7499 PINE STAKE ROAD

CULPEPER, VA 22701

Billing Contact:

Technical Contact: JIM BERKES

Site Information:

AEROJET-GENERAL

\*\*\*7499 PINE STAKE ROAD

CULPEPER, VA 22701

Phone: (540) 854-2124

Phone: (540) 854-2124

Fax: (540) 854-2002

95-5178

Name of Waste: \*95-5178 RAGS/TRASH/DEBRIS

Waste Codes: F002 F005 D007 D008 D035

State Manifest Number:

D038

Federal Manifest Number: 001181407FLE

Profile Number: 95-5178

## LDR Nonwastewater Treatability Group

### A. F001-F005 Solvent Restrictions

This restricted waste category is banned from land disposal under 40 CFR 268.40 and is subject to one or more treatment standards under 40 CFR Subpart D.

EPA Code(s) Waste Description and Treatment/Regulatory Subcategory

Hazardous Constituent

Total Concentration in mg/l (WW),  
mg/kg (NWW); or Technology Code

F002	F001, F002, F003, F004 and/or F005 solvent wastes that contain any combination of one or more of the following spent solvents: acetone, benzene, n-butyl alcohol, carbon disulfide, carbon tetrachloride, chlorinated fluorocarbons, chlorobenzene, o-cresol, m-cresol, p-cresol, cyclohexanone, o-dichlorobenzene, 2-ethoxyethanol, ethyl acetate, ethyl benzene, ethyl ether, isobutyl alcohol, methanol, methylene chloride, methyl ethyl ketone, methyl isobutyl ketone, nitrobenzene, 2-nitropropane, pyridine, tetrachloroethylene, toluene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,1,2-trichloro-1,2,2-trifluoroethane, trichloroethylene, trichloromonofluoromethane, and/or xylenes [except as specifically noted in other subcategories]. See further details of these listings in §261.31.	Methylene chloride	30
F005	F001, F002, F003, F004 and/or F005 solvent wastes that contain any combination of one or more of the following spent solvents: acetone, benzene, n-butyl alcohol, carbon disulfide, carbon tetrachloride, chlorinated fluorocarbons, chlorobenzene, o-cresol, m-cresol, p-cresol, cyclohexanone, o-dichlorobenzene, 2-ethoxyethanol, ethyl acetate, ethyl benzene, ethyl ether, isobutyl alcohol, methanol, methylene chloride, methyl ethyl ketone, methyl isobutyl ketone, nitrobenzene, 2-nitropropane, pyridine, tetrachloroethylene, toluene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,1,2-trichloro-1,2,2-trifluoroethane, trichloroethylene, trichloromonofluoromethane, and/or xylenes [except as specifically noted in other subcategories]. See further details of these listings in §261.31.	Methyl ethyl ketone	36
F005	F001, F002, F003, F004 and/or F005 solvent wastes that contain any combination of one or more of the following spent solvents: acetone, benzene, n-butyl alcohol, carbon disulfide, carbon tetrachloride, chlorinated fluorocarbons, chlorobenzene, o-cresol, m-cresol, p-cresol, cyclohexanone, o-dichlorobenzene, 2-ethoxyethanol, ethyl acetate, ethyl benzene, ethyl ether, isobutyl alcohol, methanol, methylene chloride, methyl ethyl ketone, methyl isobutyl ketone, nitrobenzene, 2-nitropropane, pyridine, tetrachloroethylene, toluene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,1,2-trichloro-1,2,2-trifluoroethane, trichloroethylene, trichloromonofluoromethane, and/or xylenes [except as specifically noted in other subcategories]. See further details of these listings in §261.31.	Pyridine	16
	F001, F002, F003, F004 and/or F005 solvent wastes that contain any combination of one or more of the following spent solvents: acetone, benzene, n-butyl alcohol, carbon disulfide, carbon tetrachloride, chlorinated fluorocarbons, chlorobenzene, o-cresol, m-cresol, p-cresol, cyclohexanone, o-dichlorobenzene, 2-ethoxyethanol, ethyl acetate, ethyl benzene, ethyl ether, isobutyl alcohol, methanol, methylene chloride, methyl ethyl ketone, methyl isobutyl ketone, nitrobenzene, 2-nitropropane, pyridine, tetrachloroethylene, toluene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,1,2-trichloro-1,2,2-trifluoroethane, trichloroethylene, trichloromonofluoromethane, and/or xylenes [except as specifically noted in other subcategories]. See further details of these listings in §261.31.		

# Ashland Land Disposal Restriction Form

F005	F001, F002, F003, F004 and/or F005 solvent wastes that contain any combination of one or more of the following spent solvents: acetone, benzene, n-butyl alcohol, carbon disulfide, carbon tetrachloride, chlorinated fluorocarbons, chlorobenzene, o-cresol, m-cresol, p-cresol, cyclohexanone, o-dichlorobenzene, 2-ethoxyethanol, ethyl acetate, ethyl benzene, ethyl ether, isobutyl alcohol, methanol, methylene chloride, methyl ethyl ketone, methyl isobutyl ketone, nitrobenzene, 2-nitropropane, pyridine, tetrachloroethylene, toluene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,1,2-trichloro-1,2,2-trifluoroethane, trichloroethylene, trichloromono-fluoromethane, and/or xylenes [except as specifically noted in other subcategories]. See further details of these listings in §261.31.	Toluene	10
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## B. Other Regulated Waste Notification

This section includes all wastes restricted from land disposal not included in other sections. If any treatment standards reference 268.48, then all underlying hazardous constituents are listed in Section D.

EPA Code(s)	Waste Description and Treatment/Regulatory Subcategory	Hazardous Constituent	Total Concentration in mg/l (WW), mg/kg (NWW); or Technology Code
D007	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for chromium based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Chromium (Total)	0.60 mg/l TCLP and meet §268.48 standards
D008	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for lead based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Lead	0.75 mg/l TCLP and meet §268.48 standards
D035	Wastes that are TC for Methyl ethyl ketone based on the TCLP in SW846 Method 1311.	Methyl ethyl ketone	36 and meet §268.48 standards
D038	Wastes that are TC for Pyridine based on the TCLP in SW846 Method 1311.	Pyridine	16 and meet §268.48 standards

## C. D001-D003

There are no D001-D003 restricted wastes present that are banned from land disposal.

EPA Code(s)	Waste Description and Treatment/Regulatory Subcategory	Hazardous Constituent	Total Concentration in mg/l (WW), mg/kg (NWW); or Technology Code
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## D: Underlying Hazardous Constituents

There are no underlying hazardous constituents present as defined in 268.2(i).

Hazardous Constituent	Total Concentration in mg/l (WW), mg/kg (NWW); or Technology Code
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# Ashland Land Disposal Restriction Form

## Generator Information:

EPA ID #: VAD981112618

\*AEROJET-GENERAL

7499-PINE STAKE ROAD

CULPEPER, VA 22701

Billing Contact:

Technical Contact: JIM BERKES

Site Information:

AEROJET-GENERAL

\*\*\*7499 PINE STAKE ROAD

CULPEPER, VA 22701

Phone: (540) 854-2124

Phone: (540) 854-2124

Fax: (540) 854-2002

95-5176

Name of Waste: \*95-5176 THERMAL PAN RESIDUE

Waste Codes: F002 F005

State Manifest Number:

Federal Manifest Number: 001181407FUE

Profile Number: 95-5176

## LDR Nonwastewater Treatability Group

### A. F001-F005 Solvent Restrictions

This restricted waste category is banned from land disposal under 40 CFR 268.40 and is subject to one or more treatment standards under 40 CFR Subpart D.

EPA Code(s) Waste Description and Treatment/Regulatory Subcategory

Hazardous Constituent

Total Concentration in mg/l (WW),  
mg/kg (NWW); or Technology Code

92	F001, F002, F003, F004 and/or F005 solvent wastes that contain any combination of one or more of the following spent solvents: acetone, benzene, n-butyl alcohol, carbon disulfide, carbon tetrachloride, chlorinated fluorocarbons, chlorobenzene, o-cresol, m-cresol, p-cresol, cyclohexanone, o-dichlorobenzene, 2-ethoxyethanol, ethyl acetate, ethyl benzene, ethyl ether, isobutyl alcohol, methanol, methylene chloride, methyl ethyl ketone, methyl isobutyl ketone, nitrobenzene, 2-nitropropane, pyridine, tetrachloroethylene, toluene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,1,2-trichloro-1,2,2-trifluoroethane, trichloroethylene, trichloromonofluoromethane, and/or xylenes [except as specifically noted in other subcategories]. See further details of these listings in §261.31.	1,1,1-Trichloroethane	6.0
F005	F001, F002, F003, F004 and/or F005 solvent wastes that contain any combination of one or more of the following spent solvents: acetone, benzene, n-butyl alcohol, carbon disulfide, carbon tetrachloride, chlorinated fluorocarbons, chlorobenzene, o-cresol, m-cresol, p-cresol, cyclohexanone, o-dichlorobenzene, 2-ethoxyethanol, ethyl acetate, ethyl benzene, ethyl ether, isobutyl alcohol, methanol, methylene chloride, methyl ethyl ketone, methyl isobutyl ketone, nitrobenzene, 2-nitropropane, pyridine, tetrachloroethylene, toluene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,1,2-trichloro-1,2,2-trifluoroethane, trichloroethylene, trichloromonofluoromethane, and/or xylenes [except as specifically noted in other subcategories]. See further details of these listings in §261.31.	Methyl ethyl ketone	36

### B. Other Regulated Waste Notification

There are no wastes present that are restricted from land disposal that are not included in other sections.

EPA Code(s) Waste Description and Treatment/Regulatory Subcategory

Hazardous Constituent

Total Concentration in mg/l (WW),  
mg/kg (NWW); or Technology Code

### C. D001-D003

There are no D001-D003 restricted wastes present that are banned from land disposal.

EPA Code(s) Waste Description and Treatment/Regulatory Subcategory

Hazardous Constituent

Total Concentration in mg/l (WW),  
mg/kg (NWW); or Technology Code

# Ashland Land Disposal Restriction Form

F005	F001, F002, F003, F004 and/or F005 solvent wastes that contain any combination of one or more of the following spent solvents: acetone, benzene, n-butyl alcohol, carbon disulfide, carbon tetrachloride, chlorinated fluorocarbons, chlorobenzene, o-cresol, m-cresol, p-cresol, cyclohexanone, o-dichlorobenzene, 2-ethoxyethanol, ethyl acetate, ethyl benzene, ethyl ether, isobutyl alcohol, methanol, methylene chloride, methyl ethyl ketone, methyl isobutyl ketone, nitrobenzene, 2-nitropropane, pyridine, tetrachloroethylene, toluene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,1,2-trichloro-1,2,2-trifluoroethane, trichloroethylene, trichloromonofluoromethane, and/or xylenes [except as specifically noted in other subcategories]. See further details of these listings in §261.31.	Toluene	10
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## B. Other Regulated Waste Notification

This section includes all wastes restricted from land disposal not included in other sections. If any treatment standards reference 268.48, then all underlying hazardous constituents are listed in Section D.

EPA Code(s)	Waste Description and Treatment/Regulatory Subcategory	Hazardous Constituent	Total Concentration in mg/l (WW), mg/kg (NWW); or Technology Code
D007	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for chromium based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Chromium (Total)	0.60 mg/l TCLP and meet §268.48 standards
D008	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for lead based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Lead	0.75 mg/l TCLP and meet §268.48 standards
D035	Wastes that are TC for Methyl ethyl ketone based on the TCLP in SW846 Method 1311.	Methyl ethyl ketone	36 and meet §268.48 standards
D038	Wastes that are TC for Pyridine based on the TCLP in SW846 Method 1311.	Pyridine	16 and meet §268.48 standards

## C. D001-D003

There are no D001-D003 restricted wastes present that are banned from land disposal.

EPA Code(s)	Waste Description and Treatment/Regulatory Subcategory	Hazardous Constituent	Total Concentration in mg/l (WW), mg/kg (NWW); or Technology Code
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## D: Underlying Hazardous Constituents

There are no underlying hazardous constituents present as defined in 268.2(i).

Hazardous Constituent	Total Concentration in mg/l (WW), mg/kg (NWW); or Technology Code
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# LAND DISPOSAL NOTIFICATION/CERTIFICATION FORM for PROCESS WASTES



The purpose of this document is to provide notification — and if appropriate, certification — relating to the waste referenced herein, as required by the land disposal restrictions codified at 40 CFR Part 268.

Instructions for completing this form: For *each* waste stream referenced on this form, please complete Sections 1 through 5, Section 7, and other sections as applicable. To complete Section 7, please note that only one type of notification (and/or certification) will apply to a waste stream, so please consult the following table for further instructions. Complete Section 6 only if a waste subcategory applies. Complete Section 8 only for characteristic wastes, if required by regulation. Signatures must be provided only by an authorized generator representative.

If the waste ...,	and/but if..,	then also complete section
is F or K code waste,	and it fails LDRs,	9
is F or K code waste,	and it meets LDRs,	10
is D code waste,	and it fails LDRs for the hazardous characteristic & UHCs,	9
was D code waste,	and it meets LDRs for the D code, but fails for UHCs,	11
was D code waste,	and it meets LDRs for both the D code and all UHCs,	12

## SECTION 1

Generator's Name: AEROJET CORP

Generator's EPA #: VAD981112818

Pick-up Address: 7489 PINE STAKE RD, CULPEPER, VA 22701

Manifest Tracking Number: 001181407 FLE

SECTION 2	SECTION 3	SECTION 4	SECTION 5	SECTION 6	SECTION 7
Manifest Item #	Envirite Approval #	EPA Hazardous Waste Number ("Waste Code")	Treatability Group: Wastewater (WW) or Nonwastewater (NWW)	Subcategory (if applicable)	Type of Notification/ Certification (fill in the blank)
	C4900	D011	NWW	NA	See section 12
					See section
					See section
					See section

## SECTION 8

Underlying Hazardous Constituents (UHCs) (For each waste stream for which they must be identified, please identify all UHCs, or indicate that they are identified in an attachment to this form. \_\_\_\_\_)

## SECTION 9

To be land disposed, this waste must meet applicable land disposal restrictions treatment standards in 40 CFR 268 Subpart D.

Printed Name:

Signature:

Date:

## SECTION 10

I certify under penalty of law that I have personally examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR part 268 subpart D. I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

Printed Name:

Signature:

Date:

## SECTION 11

I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet universal treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

Printed Name:

Signature:

Date:

## SECTION 12

I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 to remove the hazardous characteristic and that underlying hazardous constituents, as defined in § 268.2(i) have been treated on-site to meet the § 268.48 Universal Treatment Standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

Printed Name:

Signature:

Date:

Received 4/16/07

1. Uniform Hazardous Waste Manifest		2. Generator ID Number VAD991112618		3. Emergency Response Phone 1-800-274-8263		4. Manifest Tracking Number 000902210 FLE	
5. Generator's Name and Mailing Address AEROJET-GENERAL CORPORATION 7499 PINE STAKE ROAD CULPEPER VA 22701				5. Generator's Site Address (if different than mailing address) AEROJET ATTN: JIM BERKES 7499 PINE STAKE RD CULPEPER VA 22701			
6. Generator's Phone: (540) 854-2124 ATTN: JIM BERKES				U.S. EPA ID Number OH D 0 4 2 3 1 1 2 0 9			
7. Transporter 1 Company Name ASHLAND INC.				U.S. EPA ID Number NJ D 0 5 4 1 2 6 1 6 4			
8. Designated Facility Name and Site Address AMERICAN ENVIRONMENTAL SERVICES INC 1599 SHAR-CAL ROAD CALVERT CITY KY 42029				U.S. EPA ID Number KY D 9 8 5 0 7 3 1 9 6			
Facility's Phone: (270) 395-0504							

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt/Vol	13. Waste Codes	
		No.	Type				
1	WASTE ISOCYANOL 3, UN219, REG RD(D001)	1	DR	400	P	D001	
2							
3							
4							

14. Special Handling Instructions and Additional Information  
6736 IPA & WATER IM ALK; NOT-18243-D, 392250/17851 TW

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Officer's Printed/Typed Name: Timothy J. Patton  
Signature: [Signature]  
Month: 04 Day: 02 Year: 07

16. International Shipments: ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: \_\_\_\_\_  
Date leaving U.S.: \_\_\_\_\_

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Jeffery H. Bowden  
Signature: [Signature]  
Month: 04 Day: 02 Year: 07

Transporter 2 Printed/Typed Name: Leroy Berdick  
Signature: [Signature]  
Month: 04 Day: 05 Year: 07

18. Discrepancy

18a. Discrepancy Indication Space: ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number: \_\_\_\_\_

18b. Alternate Facility (or Generator) \_\_\_\_\_ U.S. EPA ID Number \_\_\_\_\_

Facility's Phone: \_\_\_\_\_

18c. Signature of Alternate Facility (or Generator) \_\_\_\_\_ Month: \_\_\_\_\_ Day: \_\_\_\_\_ Year: \_\_\_\_\_

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1: H141 2: 2 3: 3 4: 4

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a

Printed/Typed Name: James York  
Signature: [Signature]  
Month: 04 Day: 06 Year: 07

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <b>VAD981112618</b>	2. Page 1 of <b>/</b>	3. Emergency Response Phone <b>1 800 274 5263</b>	4. Manifest Tracking Number <b>000902210 FLE</b>			
Generator's Name and Mailing Address <b>AEROJET-GENERAL CORPORATION 7499 PINE STAKE ROAD CULPEPER VA 22701</b>			Generator's Site Address (if different than mailing address) <b>AEROJET ATTN: JIM BERKES 7499 PINE STAKE RD CULPEPER VA 22701</b>					
Generator's Phone: <b>(540) 854-2124 ATTN: JIM BERKES</b>								
6. Transporter 1 Company Name <b>ASHLAND INC.</b>			U.S. EPA ID Number <b>O H D 0 4 2 3 1 1 2 0 9</b>					
7. Transporter 2 Company Name			U.S. EPA ID Number					
8. Designated Facility Name and Site Address <b>AMERICAN ENVIRONMENTAL SERVICES INC 1689 SHAR-CAL ROAD CALVERT CITY KY 42029</b>			U.S. EPA ID Number <b>K Y D 9 8 5 0 7 3 1 9 6</b>					
Facility's Phone: <b>(270) 395-0504</b>								
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
			No.	Type				
	1.	<b>X WASTE ISOPROPANOL 3, UN1219, PGII RQ(D001)</b>	1	D M	400	P	D001	
	2.							
	3.							
	4.							
Special Handling Instructions and Additional Information <b>5-6736 IEA &amp; WATER LM AEA# MGT-18243-D, 392250/17851 TW</b>								
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.								
Generator's/Officer's Printed/Typed Name <b>Timothy J. Patton</b>			Signature <i>[Signature]</i>			Month Day Year <b>04 02 07</b>		
TRANSPORTER	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit: _____ Date leaving U.S.: _____					
	17. Transporter Acknowledgment of Receipt of Materials							
	Transporter 1 Printed/Typed Name <b>Jeffery H. Bowden</b>		Signature <i>[Signature]</i>			Month Day Year <b>04 02 07</b>		
	Transporter 2 Printed/Typed Name		Signature			Month Day Year		
DESIGNATED FACILITY	18. Discrepancy							
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
	Manifest Reference Number: _____							
	18b. Alternate Facility (or Generator)		U.S. EPA ID Number					
	Facility's Phone: _____							
	18c. Signature of Alternate Facility (or Generator)		Month Day Year					
	19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
	1.		2.		3.		4.	
	20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
	Printed/Typed Name		Signature			Month Day Year		

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <b>VAD961112616</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>1 800 274 5263</b>	4. Manifest Tracking Number <b>000902210 FLE</b>
Generator's Name and Mailing Address <b>BEROJET-GENERAL CORPORATION</b> <b>7499 PINE STAKE ROAD</b> <b>CULPEPER VA 22701</b>			Generator's Site Address (if different than mailing address) <b>BEROJET ATTN: JIM BERRIES</b> <b>7499 PINE STAKE RD</b> <b>CULPEPER VA 22701</b>		
Generator's Phone: <b>(540) 854-2124 ATTN: JIM BERRIES</b>					
6. Transporter 1 Company Name <b>ASHLAND INC.</b>			U.S. EPA ID Number <b>OH D 0 4 2 3 1 1 2 0 9</b>		
7. Transporter 2 Company Name			U.S. EPA ID Number		
8. Designated Facility Name and Site Address <b>AMERICAN ENVIRONMENTAL SERVICES INC</b> <b>1609 SHAR CAL ROAD</b> <b>CALVERT CITY KY 42029</b>			U.S. EPA ID Number <b>K Y D 9 9 5 0 7 3 1 9 6</b>		
Facility's Phone: <b>(270) 395-0504</b>					
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type	11. Total Quantity	12. Unit Wt/Vol.	13. Waste Codes
X	1. <b>WASTE ISOCYANOL 9, UN1219, PGII RQ(D001)</b>	1 DM	400	P	D001
	2.				
	3.				
	4.				
Special Handling Instructions and Additional Information <b>5-5735 TRA &amp; WATER LOG ALST 907-16242-D, 092280/17851 TW</b>					
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.					
Generator's/Offor's Printed/Typed Name <b>Timothy J. Patton</b>		Signature <i>[Signature]</i>		Month Day Year <b>04 02 07</b>	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.		Port of entry/exit: Date leaving U.S.:			
Transporter signature (for exports only):					
17. Transporter Acknowledgment of Receipt of Materials					
Transporter 1 Printed/Typed Name <b>Jeffrey H. Bowden</b>		Signature <i>[Signature]</i>		Month Day Year <b>04 02 07</b>	
Transporter 2 Printed/Typed Name		Signature		Month Day Year	
18. Discrepancy					
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
Manifest Reference Number:					
18b. Alternate Facility (or Generator) U.S. EPA ID Number					
Facility's Phone:					
18c. Signature of Alternate Facility (or Generator) Month Day Year					
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)					
1.		2.		3.	
4.					
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a					
Printed/Typed Name		Signature		Month Day Year	

**LAND DISPOSAL RESTRICTION NOTIFICATION FORM**

Generator Name Aerojet Corporation EPA ID Number VAD98112618

Manifest Document No. 000902210 FLE State Manifest Document No. \_\_\_\_\_

Waste Analysis Available: Yes \_\_\_\_\_ No X Previously Submitted \_\_\_\_\_

Page 1 of 1

Manifest Line	Profile No.	RCRA Waste Codes (List all that apply. Write "None" if wastestream is not regulated by RCRA.)	Subcategory (See Table 2. Select Subcategory Number if appropriate.)	Treatability Group (Check the applicable column.)		California List Wastes (List applicable constituents from Table 3.)	Regulated Constituents (List applicable constituents from Table 1 and/or Table 4.)	
	a	b	c	Nonwastewater d	Wastewater e	f		g
	18243	0001	1	X				

I certify under penalty of law that all of the information in this Notification Form is, to the best of my knowledge, accurate and true.

Print Name Timothy J. Patton Signature [Signature] Date 4.2.07

**Please use one Land Disposal Restriction Notification Form per manifest.**

## ASHLAND LAND DISPOSAL RESTRICTION NOTIFICATION FORM

EPA Waste Codes	Technology Code
<input type="checkbox"/> U189,U249	CHOXD;CHRED; or INCIN
<input type="checkbox"/> U246	CHOXD;WETOX; or INCIN
<input type="checkbox"/> U023,U096,U133,U086,U098,U099,U103,U109,U160	CHOXD;CHRED; or CMBST
<input type="checkbox"/> U238,U353	INCIN; or Thermal Destruction
<input type="checkbox"/> U115	CHOXD; or INCIN
<input type="checkbox"/> K044,K045,K047	CHOXD, or INCIN
<input type="checkbox"/> K112,K123,K124,K125,K126,K025,K026,U001,U006,U007,U010,U014, U015,U017,U020,U021,U026,U033,U034,U035,U038,U041,U042,U046, U049,U059,U062,U073,U074,U091,U092,U093,U095,U097,U110,U114, U116,U119,U132,U143,U148,U149,U150,U153,U156,U163,U167,U168, U171,U173,U176,U178,U184,U191,U193,U194,U200,U202,U206,U218, U219,U222,U236,U237,U238,U244 F005 (2-Nitropropane,2-ethoxyethanol)	INCIN
<input type="checkbox"/> K027,K039,K113,K114,K116,U008,U016,U053,U055,U056,U057,U058 U064,U085,U087,U089,U090,U094,U113,U122,U123,U124,U125,U126, U147,U154,U166,U182,U186,U197,U201,U213,U221,U223,U248,U359	CMBST
<input type="checkbox"/> P001-P005,P007,P008,P010-P018,P020-P024,P026-P031,P033,P034, P036-P047,P085,P087-P089,P092-P094,P097-P099,P101-P111,P113- P116,P118-P121,P123,P128,P185,P188-P192,P194,P196-P199,P201-P205	CMBST

NOTE: Retain one copy for your files, send one copy with your shipment.

**ASHLAND.**

95-7284

**ASHLAND LAND DISPOSAL RESTRICTION NOTIFICATION FORM**

Generator:	AEROJET CORPORATION		EPA ID#	VAD981112618
Manifest #	00112055849	Profile #	ASH# 95-7284	Line Item:
EPA Codes	D005			9a2

EPA Waste Codes	Waste Description & Treatment/Regulatory Subcategory	Concentration in mg/l or Technology Code
<input type="checkbox"/> D001	Ignitable characteristic wastes except for 261.21(a)(1) High TOC subcategory that are managed in Non-CWA/Non-CWA equivalent/ non class 1 SDWA systems.	DEACT and meet 268.48 standards or RORGS; or CMBST
<input type="checkbox"/> D001	High TOC Ignitable characteristic liquids subcategory based on 40 CFR 261.21(a)(1)-greater than or equal to 10% TOC.	RORGS; or CMBST
<input type="checkbox"/> D002	Corrosive characteristic wastes that are managed in non-CWA non-CWA equivalent, or class/SDWA systems.	DEACT & meet 268.48 standards
D004-D011 Non-Wastewater Heavy Metals Expressed on Concentrations of mg/l (TCLP)		

<input type="checkbox"/> D004 Arsenic 5.0	<input type="checkbox"/> D008 Lead 5.0
<input checked="" type="checkbox"/> D005 Barium 100	<input type="checkbox"/> D009 Mercury 0.20 low mercury standard
<input type="checkbox"/> D006 Cadmium 1.0	<input type="checkbox"/> D010 Selenium 1.0
<input type="checkbox"/> D007 Chromium 5.0	<input type="checkbox"/> D011 Silver 5.0

D012-D043 Concentrations Expressed in mg/kg, and Must Meet 268.48 Standards.		
<input type="checkbox"/> D012 Endrin 0.13	<input type="checkbox"/> D024 m-cresol 5.6	<input type="checkbox"/> D036 Nitrobenzene 14
<input type="checkbox"/> D013 Lindane 0.066	<input type="checkbox"/> D025 p-cresol 5.6	<input type="checkbox"/> D037 Pentachlorophenol 7.4
<input type="checkbox"/> D014 Methoxychlor 0.18	<input type="checkbox"/> D026 p-Total cresols 11.2	<input type="checkbox"/> D038 Pyridine 16
<input type="checkbox"/> D015 Toxaphene 2.6	<input type="checkbox"/> D027 p-dichlorobenzene 6.0	<input type="checkbox"/> D039 Tetrachloroethylene 6.0
<input type="checkbox"/> D016 2,4 D 10	<input type="checkbox"/> D028 1,2-dichloroethane 6.0	<input type="checkbox"/> D040 Trichloroethylene 6.0
<input type="checkbox"/> D017 2,4,5-TP Silvex 7.9	<input type="checkbox"/> D029 1,1-dichloroethylene 6.0	<input type="checkbox"/> D041 2,4,5-Triphenol 7.4
<input type="checkbox"/> D018 Benzene 10	<input type="checkbox"/> D030 2,4-dinitrotoluene 140	<input type="checkbox"/> D042 2,4,6-Triphenol 7.4
<input type="checkbox"/> D019 Carbon Tetrachloride 6.0	<input type="checkbox"/> D031 Heptachlor/epoxides.066	<input type="checkbox"/> D043 Vinyl Chloride 6.0
<input type="checkbox"/> D020 Chlordane 0.26	<input type="checkbox"/> D032 Hexachlorobenzene 10	
<input type="checkbox"/> D021 Chlorobenzene 6.0	<input type="checkbox"/> D033 Hexachlorobutadiene 5.6	
<input type="checkbox"/> D022 Chloroform 6.0	<input type="checkbox"/> D034 Hexachloroethane 30	
<input type="checkbox"/> D023 o-cresol 5.6	<input type="checkbox"/> D035 Methyl Ethyl Ketone 36	

F001-F005 Spent Solvents  
Concentrations expressed in mg/kg

F003-F005 Non-Wastewater spent solvents  
expressed in mg/l (TCLP)

<input type="checkbox"/> Acetone 160	<input type="checkbox"/> Methylene Chloride 30	<input type="checkbox"/> Carbon Disulfide 4.8
<input type="checkbox"/> Benzene 10	<input type="checkbox"/> Methyl Ethyl Ketone 36	<input type="checkbox"/> Cyclohexanone 0.75
<input type="checkbox"/> n-Butyl Alcohol 2.6	<input type="checkbox"/> Methyl Isobutyl Ketone 33	<input type="checkbox"/> Methanol 0.75
<input type="checkbox"/> Carbon Tetrachloride 6.0	<input type="checkbox"/> Nitrobenzene 14	
<input type="checkbox"/> Chlorobenzene 6.0	<input type="checkbox"/> Pyridine 16	
<input type="checkbox"/> o-cresol 5.6	<input type="checkbox"/> Tetrachloroethylene 6.0	
<input type="checkbox"/> m-cresol 5.6	<input type="checkbox"/> Toluene 10	
<input type="checkbox"/> p-cresol 5.6	<input type="checkbox"/> 1,1,1 Trichloroethane 6.0	
<input type="checkbox"/> Cresol mixed isomers 11.2	<input type="checkbox"/> 112 Trichloroethane 6.0	
<input type="checkbox"/> Dichlorobenzene 6.0	<input type="checkbox"/> 112 Trichloro 122-trifluoroethane 30	
<input type="checkbox"/> Ethyl Acetate 33	<input type="checkbox"/> Trichloroethylene 6.0	
<input type="checkbox"/> Ethyl Benzene 10	<input type="checkbox"/> Trichloromonofluoromethane 30	
<input type="checkbox"/> Ethyl Ether 160	<input type="checkbox"/> Xylene (mixed isomer) 30	
<input type="checkbox"/> Isobutyl Alcohol 170		

Ashland does not warrant the acceptability of this form for any specific purpose, waste or treatment method and does not warrant that its use will constitute compliance with applicable law and expressly disclaims responsibility or liability, for any penalties, damages or other costs which may arise out of or be related to use of this document.

## ASHLAND LAND DISPOSAL RESTRICTION NOTIFICATION FORM

EPA Waste Codes	Technology Code
<input type="checkbox"/> U189,U249	CHOXD;CHRED; or INCIN
<input type="checkbox"/> U246	CHOXD;WETOX; or INCIN
<input type="checkbox"/> U023,U096,U133,U086,U098,U099,U103,U109,U160	CHOXD;CHRED; or CMBST
<input type="checkbox"/> U238,U353	INCIN; or Thermal Destruction
<input type="checkbox"/> U115	CHOXD; or INCIN
<input type="checkbox"/> K044,K045,K047	CHOXD, or INCIN
<input type="checkbox"/> K112,K123,K124,K125,K126,K025,K026,U001,U006,U007,U010,U014, U015,U017,U020,U021,U026,U033,U034,U035,U038,U041,U042,U046, U049,U059,U062,U073,U074,U091,U092,U093,U095,U097,U110,U114, U116,U119,U132,U143,U148,U149,U150,U153,U156,U163,U167,U168, U171,U173,U176,U178,U184,U191,U193,U194,U200,U202,U206,U218, U219,U222,U236,U237,U238,U244 F005 (2-Nitropropane,2-ethoxyethanol)	INCIN
<input type="checkbox"/> K027,K039,K113,K114,K116,U008,U016,U053,U055,U056,U057,U058 U064,U085,U087,U089,U090,U094,U113,U122,U123,U124,U125,U126, U147,U154,U166,U182,U186,U197,U201,U213,U221,U223,U248,U359	CMBST
<input type="checkbox"/> P001-P005,P007,P008,P010-P018,P020-P024,P026-P031,P033,P034, P036-P047,P085,P087-P089,P092-P094,P097-P099,P101-P111,P113- P116,P118-P121,P123,P128,P185,P188-P192,P194,P196-P199,P201-P205	CMBST

NOTE: Retain one copy for your files, send one copy with your shipment.



## ASHLAND LAND DISPOSAL RESTRICTION NOTIFICATION FORM

Generator:	AEROJET CORP		EPA ID#	VAD981112618
Manifest #	00118005841	Profile #	95-7383	Line Item: 9a 2
EPA Codes	D008			

EPA Waste Codes	Waste Description & Treatment/Regulatory Subcategory	Concentration in mg/l or Technology Code
-----------------	--	--

- |                          |      |  |  |
|--------------------------|------|--|--|
| <input type="checkbox"/> | D001 | Ignitable characteristic wastes except for 261.21(a)(1) High TOC subcategory that are managed in Non-CWA/Non-CWA equivalent/ non class 1 SDWA systems. | DEACT and meet 268.48 standards or RORGS; or CMBST |
| <input type="checkbox"/> | D001 | High TOC Ignitable characteristic liquids subcategory based on 40 CFR 261.21(a)(1)-greater than or equal to 10% TOC.                                   | RORGS; or CMBST                                    |
| <input type="checkbox"/> | D002 | Corrosive characteristic wastes that are managed in non-CWA non-CWA equivalent, or class/SDWA systems.   | DEACT & meet 268.48 standards                      |
| <input type="checkbox"/> | D003 | Other Reactives Subcategory based on 261.23 (a)(1)   | DEACT & meet 268.58 standards                      |

D004-D011	Non-Wastewater Heavy Metals Expressed on Concentrations of mg/l (TCLP)
-----------	--

- |  |   |
|--|---|
| <input type="checkbox"/> D004 Arsenic 5.0  | <input checked="" type="checkbox"/> D008 Lead 5.0               |
| <input type="checkbox"/> D005 Barium 100   | <input type="checkbox"/> D009 Mercury 0.20 low mercury standard |
| <input type="checkbox"/> D006 Cadmium 1.0  | <input type="checkbox"/> D010 Selenium 1.0                      |
| <input type="checkbox"/> D007 Chromium 5.0 | <input type="checkbox"/> D011 Silver 5.0                        |

D012-D043	Concentrations Expressed in mg/kg, and Must Meet 268.48 Standards.
-----------	--

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> D012 Endrin 0.13              | <input type="checkbox"/> D024 m-cresol 5.6             | <input type="checkbox"/> D036 Nitrobenzene 14         |
| <input type="checkbox"/> D013 Lindane 0.066            | <input type="checkbox"/> D025 p-cresol 5.6             | <input type="checkbox"/> D037 Pentachlorophenol 7.4   |
| <input type="checkbox"/> D014 Methoxychlor 0.18        | <input type="checkbox"/> D026 p-Total cresols 11.2     | <input type="checkbox"/> D038 Pyridine 16             |
| <input type="checkbox"/> D015 Toxaphene 2.6            | <input type="checkbox"/> D027 p-dichlorobenzene 6.0    | <input type="checkbox"/> D039 Tetrachloroethylene 6.0 |
| <input type="checkbox"/> D016 2,4 D 10                 | <input type="checkbox"/> D028 1,2-dichloroethane 6.0   | <input type="checkbox"/> D040 Trichloroethylene 6.0   |
| <input type="checkbox"/> D017 2,4,5-TP Silvex 7.9      | <input type="checkbox"/> D029 1,1-dichloroethylene 6.0 | <input type="checkbox"/> D041 2,4,5-Triphenol 7.4     |
| <input type="checkbox"/> D018 Benzene 10               | <input type="checkbox"/> D030 2,4-dinitrotoluene 140   | <input type="checkbox"/> D042 2,4,6-Triphenol 7.4     |
| <input type="checkbox"/> D019 Carbon Tetrachloride 6.0 | <input type="checkbox"/> D031 Heptachlor/epoxides.066  | <input type="checkbox"/> D043 Vinyl Chloride 6.0      |
| <input type="checkbox"/> D020 Chlordane 0.26           | <input type="checkbox"/> D032 Hexachlorobenzene 10     |   |
| <input type="checkbox"/> D021 Chlorobenzene 6.0        | <input type="checkbox"/> D033 Hexachlorobutadiene 5.6  |   |
| <input type="checkbox"/> D022 Chloroform 6.0           | <input type="checkbox"/> D034 Hexachloroethane 30      |   |
| <input type="checkbox"/> D023 o-cresol 5.6             | <input type="checkbox"/> D035 Methyl Ethyl Ketone 36   |   |

F001-F005 Spent Solvents Concentrations expressed in mg/kg	F003-F005 Non-Wastewater spent solvents expressed in mg/l (TCLP)
---	---

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Acetone 160               | <input type="checkbox"/> Methylene Chloride 30                | <input type="checkbox"/> Carbon Disulfide 4.8 |
| <input type="checkbox"/> Benzene 10                | <input type="checkbox"/> Methyl Ethyl Ketone 36               | <input type="checkbox"/> Cyclohexanone 0.75   |
| <input type="checkbox"/> n-Butyl Alcohol 2.6       | <input type="checkbox"/> Methyl Isobutyl Ketone 33            | <input type="checkbox"/> Methanol 0.75        |
| <input type="checkbox"/> Carbon Tetrachloride 6.0  | <input type="checkbox"/> Nitrobenzene 14                      |   |
| <input type="checkbox"/> Chlorobenzene 6.0         | <input type="checkbox"/> Pyridine 16                          |   |
| <input type="checkbox"/> o-cresol 5.6              | <input type="checkbox"/> Tetrachloroethylene 6.0              |   |
| <input type="checkbox"/> m-cresol 5.6              | <input type="checkbox"/> Toluene 10                           |   |
| <input type="checkbox"/> p-cresol 5.6              | <input type="checkbox"/> 1,1,1 Trichloroethane 6.0            |   |
| <input type="checkbox"/> Cresol mixed isomers 11.2 | <input type="checkbox"/> 112 Trichloroethane 6.0              |   |
| <input type="checkbox"/> Dichlorobenzene 6.0       | <input type="checkbox"/> 112 Trichloro 122-trifluoroethane 30 |   |
| <input type="checkbox"/> Ethyl Acetate 33          | <input type="checkbox"/> Trichloroethylene 6.0                |   |
| <input type="checkbox"/> Ethyl Benzene 10          | <input type="checkbox"/> Trichloromonofluoromethane 30        |   |
| <input type="checkbox"/> Ethyl Ether 160           | <input type="checkbox"/> Xylene (mixed isomer) 30             |   |
| <input type="checkbox"/> Isobutyl Alcohol 170      |   |   |

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Received 6/15/07 J3

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number VAD901112618		2. Page 1 of 1		3. Emergency Response Phone 1 800 274 5263		4. Manifest Tracking Number 001180558 FLE			
Generator's Name and Mailing Address AEROJET-GENERAL CORPORATION 7499 PINE STAKE ROAD CULPEPER VA 22701				Generator's Site Address (if different than mailing address) AEROJET ATTN: JIM BERKES 7499 PINE STAKE RD CULPEPER VA 22701							
Generator's Phone: (540) 854-2124 ATTN: JIM BERKES				U.S. EPA ID Number O H D 0 4 2 3 1 1 2 0 9							
6. Transporter 1 Company Name ASHLAND INC.				U.S. EPA ID Number							
7. Transporter 2 Company Name				U.S. EPA ID Number							
8. Designated Facility Name and Site Address ASHLAND INC. 3930 GLENWOOD DRIVE CHARLOTTE NC 28206				U.S. EPA ID Number N C D 0 6 1 2 6 3 3 1 5							
Facility's Phone: (704) 391-6892											
9a. HM		9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))		10. Containers No. Type		11. Total Quantity		12. Unit Wt./Vol.		13. Waste Codes	
X		HAZARDOUS WASTE, LIQUID, N.O.S. (LEAD) 9, NA3082, PGIII		001 DM		150 P				DQ08	
X		HAZARDOUS WASTE, SOLID, N.O.S. (LEAD) 9, NA3077, PGIII		004 DM		180 P				DQ08	
Special Handling Instructions and Additional Information 7383 45-7384 LEAD-CONTAMINATED TRASH IM ENV# C4900, 95-7384 LEAD-CONTAMINATED TRASH IM ENV# C32354, 02126											
PLACARDS offered 055											
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.											
Generator's/Officer's Printed/Typed Name X Timothy J. Patton				Signature X [Signature]				Month Day Year 06/06/07			
16. International Shipments: <input checked="" type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____											
17. Transporter Acknowledgment of Receipt of Materials											
Transporter 1 Printed/Typed Name CARL J. SNEAD				Signature [Signature]				Month Day Year 06/06/07			
Transporter 2 Printed/Typed Name				Signature				Month Day Year			
18. Discrepancy											
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection											
Manifest Reference Number: _____											
18b. Alternate Facility (or Generator)								U.S. EPA ID Number			
Facility's Phone: _____											
18c. Signature of Alternate Facility (or Generator) _____ Month Day Year											
Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)											
1. H141		2. H141		3.		4.					
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a											
Printed/Typed Name [Signature]				Signature [Signature]				Month Day Year 06/08/07			

Received 06/11/07 03

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

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Form Approved. OMB No. 2050-0039

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <b>VAD9811412618</b>	2. Page 1 of <b>2</b>	3. Emergency Response Phone <b>(888) 320-3537</b>	4. Manifest Tracking Number <b>001137767 FLE</b>		
Generator's Name and Mailing Address <b>AEROJET</b> <b>7499 Pine Stake Road</b> <b>Culpeper, VA 22701</b> Generators Phone: <b>540-854-2124</b> <b>ATTN: Jim Berkes</b>				Generator's Site Address (if different than mailing address) <b>AEROJET</b> <b>7499 PINE STAKE ROAD (Rt 621 &amp; 602)</b> <b>RHOADSVILLE, VA 22542</b>			
6. Transporter 1 Company Name <b>AATCO</b>				U.S. EPA ID Number <b>MOR000601081</b>			
7. Transporter 2 Company Name				U.S. EPA ID Number			
8. Designated Facility Name and Site Address <b>Clean Harbors Colfax LLC</b> <b>3763 Highway 471</b> <b>Colfax, LA 71417</b> Facility's Phone: <b>(318) 627-3443</b>				U.S. EPA ID Number <b>LAD981055791</b>			
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	X	1. WASTE PROPELLANT, SOLID, 1.1C, UN0498, PG II	002 DF 050 P				D003 D008
	X	2. WASTE PROPELLANT, SOLID, 1.1C, UN0498, PG II	001 DF 011 P				D008 D003
	X	3. WASTE PROPELLANT, SOLID, 1.1C, UN0498, PG II	001 DF 010 P				D008 D003
	X	4. WASTE PROPELLANT, SOLID, 1.3C, UN0499, PG II	001 DF 041 P				D007 D003
Special Handling Instructions and Additional Information 1. 6ATS-003 (S,R,E) N.E.W. Wt: <b>36 P</b> 2. 6ATS-058 (S,R,E) N.E.W. Wt: <b>0.2 P</b> 1. EX1995120194 ERG#112 3. EX1990050007 ERG#112 2. EX1990050007 ERG#112 4. EX1999070102 ERG#112 3. 6ATS-059 (S,R,E) N.E.W. Wt: <b>3 P</b> 4. 6ATS-005 (S,R,E) N.E.W. Wt: <b>34 P</b> Seal# <b>05</b> <b>SEAL NOS: 00011441, 0004604</b> Placards offered and Load Secure							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Officer's Printed/Typed Name <b>JAMES BERKES</b>				Signature <i>James Berkes</i>		Month Day Year <b>06 05 07</b>	
INTL	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.			Port of entry/exit: Date leaving U.S.:			
	Transporter signature (for exports only):						
TRANSPORTER	17. Transporter Acknowledgment of Receipt of Materials			Signature <i>Carol Stevens</i>			
	Transporter 1 Printed/Typed Name <b>CAROL STEVENS</b>			Month Day Year <b>06 05 07</b>			
DESIGNATED FACILITY	Transporter 2 Printed/Typed Name			Signature			
	18. Discrepancy			Month Day Year			
18a. Discrepancy Indication Space: <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection Manifest Reference Number:							
18b. Alternate Facility (or Generator)				U.S. EPA ID Number			
Facility's Phone:				Month Day Year			
18c. Signature of Alternate Facility (or Generator)				Month Day Year			
Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1. <b>H 129</b>		2. <b>H 129</b>		3. <b>H 129</b>		4. <b>H 129</b>	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name <b>Janine Vercher</b>				Signature <i>Janine Vercher</i>		Month Day Year <b>06 06 07</b>	

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)		21. Generator ID Number RAD 981112818	22. Page 2 of 2	23. Manifest Tracking Number 001137767FLE		
Generator's Name AEROJET						
ATTN: Jim Berkes						
25. Transporter Company Name		U.S. EPA ID Number				
26. Transporter Company Name		U.S. EPA ID Number				
27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	Type	29. Total Quantity	30. Unit Wt/Vol	31. Waste Codes
X	5. WASTE SUBSTANCES, EXPLOSIVE, N.O.S., (TRASH CONTAINING NOT MORE THAN 6% BY WEIGHT OF VARIOUS PROPELLANT EXPLOSIVES, ARCITE 388M), 1.3C, UN0477, PG II	005	DF	101	P	D003 D005 D006 D007
X	6. WASTE SUBSTANCES, EXPLOSIVE, N.O.S., (WASTE UNCURED ARCITE 388M PROPELLANT), 1.3C, UN0477, PG II	001	DF	027	P	D007 D008 D005 D003
X	7. WASTE PROPELLANT, SOLID, 1.3C, UN0499, PG II	001	DF	020	P	D007 D008 D005 D003
X	8. WASTE SUBSTANCES, EXPLOSIVE, N.O.S., (TRASH CONTAINING NOT MORE THAN 6% BY WEIGHT OF VARIOUS PROPELLANT EXPLOSIVES, DOUBLE BASE PROPELLANT), 1.3C, UN0477, PG II	003	DF	056	P	D003 D008
X	9. WASTE SUBSTANCES, EXPLOSIVE, N.O.S., (TRASH CONTAINING NOT MORE THAN 6% BY WEIGHT OF VARIOUS PROPELLANT EXPLOSIVES, M36 PROPELLANT), 1.3C, UN0477, PG II	001	DF	008	P	D008 D003
X	10. SUBSTANCES, EXPLOSIVE, N.O.S., (TRASH CONTAINING NOT MORE THAN 6% BY WEIGHT OF VARIOUS PROPELLANT EXPLOSIVES, ARCEL 440B), 1.3C, UN0477, PG II	003	DF	070	P	D003 D008
X	11. WASTE SUBSTANCES, EXPLOSIVE, N.O.S., (AMMONIUM PERCHLORATE), 1.4C, UN0479, PG II	001	DF	019	P	D007 D003
X	12. WASTE SUBSTANCES, EXPLOSIVE, N.O.S., (NITROCELLULOSE, BUTANETRIOL TRINITRATE), 1.4D, UN0480, PG II	002	DF	073	P	D003 D008
32. Special Handling Instructions and Additional Information 5. 6ATS-054(S)(RE) N.E.W.WT. 2.9P DOT SP10442 112 6. 6ATS-054(S)(RE) N.E.W.WT. 2.9P EX2006080126 112 7. 6ATS-055(S)(RE) N.E.W.WT. 1.3P EX199050291 112 8. 6ATS-051(S)(RE) N.E.W.WT. 1.6P DOT SP 10442 112 9. 6ATS-051(S)(RE) N.E.W.WT. 0.1P DOT SP 10442 112 10. 6ATS-054(S)(RE) N.E.W.WT. 2.1P DOT SP 10442 112 11. 6ATS-055(S)(RE) N.E.W.WT. 0.6P EX2005020510 114 12. 6ATS-004(S)(RE) N.E.W.WT. 2P EX2005020509 114						
33. Transporter Acknowledgment of Receipt of Materials		Signature				
Printed/Typed Name		Month Day Year				
34. Transporter Acknowledgment of Receipt of Materials		Signature				
Printed/Typed Name		Month Day Year				
35. Discrepancy						
36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)						
H 129 H 129 H 129 H 129 H 129						
H 129 H 129 H 129						

# Land Disposal Restriction Notification Form

Date: 06 / 01 / 2007

## MANIFEST INFORMATION

Generator: AEROJET

Address: 7499 Pine Stake Road  
Culpeper, VA 22701

EPA ID#: VAD981112618

Manifest No

001137767FLE

Sales Order No: C41494795

Manifest Document No:

## LINE ITEM INFORMATION

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category:
1	1	6ATS-003	NON- WASTEWATER	2 : This is subject to LDR.

### EPA Waste Codes

D003  
D008

### EPA Waste Subcategory

Explosives  
Toxicity Characteristic for Lead

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category:
2	1	6ATS-058	NON- WASTEWATER	2 : This is subject to LDR.

### EPA Waste Codes

D003  
D008

### EPA Waste Subcategory

Explosives  
Toxicity Characteristic for Lead

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category:
3	1	6ATS-059	NON- WASTEWATER	2 : This is subject to LDR.

### EPA Waste Codes

D003  
D008

### EPA Waste Subcategory

Explosives  
Toxicity Characteristic for Lead

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category:
4	1	6ATS-005	NON- WASTEWATER	2 : This is subject to LDR.

### EPA Waste Codes

D003  
D007

### EPA Waste Subcategory

Explosives  
Toxicity Characteristic for Chromium

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category:
5	2	6ATS-052	NON- WASTEWATER	2 : This is subject to LDR.

### EPA Waste Codes

D003  
D005  
D006  
D007

### EPA Waste Subcategory

Explosives  
Toxicity Characteristic for Barium  
Toxicity characteristic for Cadmium  
Toxicity Characteristic for Chromium

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category:
6	2	6ATS-054	NON- WASTEWATER	2 : This is subject to LDR.

### EPA Waste Codes

D006  
D007

### EPA Waste Subcategory

Explosives  
Toxicity Characteristic for Barium  
Toxicity characteristic for Cadmium  
Toxicity Characteristic for Chromium



# Land Disposal Restriction Notification Form

Page 2 of 4

Date: 06 / 01 / 2007

ENVIRONMENTAL SERVICES, INC.

## MANIFEST INFORMATION

Generator: AEROJET

Address: 7499 Pine Stake Road  
Culpeper, VA 22701

EPA ID#: VAD981112618

Manifest No

001137767FLE

Sales Order No: C41494795

Manifest Document No:

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category:
7	2	6ATS-055	NON- WASTEWATER	2 : This is subject to LDR.

## EPA Waste Codes

D003  
D005  
D006  
D007

## EPA Waste Subcategory

Explosives  
Toxicity Characteristic for Barium  
Toxicity characteristic for Cadmium  
Toxicity Characteristic for Chromium

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category:
8	2	6ATS-061	NON- WASTEWATER	2 : This is subject to LDR.

## EPA Waste Codes

D003  
D008

## EPA Waste Subcategory

Explosives  
Toxicity Characteristic for Lead

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category:
9	2	6ATS-051	NON- WASTEWATER	2 : This is subject to LDR.

## EPA Waste Codes

D003  
D008

## EPA Waste Subcategory

Explosives  
Toxicity Characteristic for Lead

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category:
10	2	6ATS-064	NON- WASTEWATER	2 : This is subject to LDR.

## EPA Waste Codes

D003  
D008

## EPA Waste Subcategory

Explosives  
Toxicity Characteristic for Lead

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category:
11	2	6ATS-006	NON- WASTEWATER	2 : This is subject to LDR.

## EPA Waste Codes

D003  
D007

## EPA Waste Subcategory

Explosives  
Toxicity Characteristic for Chromium

Line Item:	Page No:	Profile No:	Treatability Group:	LDR Disposal Category:
12	2	6ATS-004	NON- WASTEWATER	2 : This is subject to LDR.

## EPA Waste Codes

D003  
D008

## EPA Waste Subcategory

Explosives  
Toxicity Characteristic for Lead



ENVIRONMENTAL SERVICES, INC.

MANIFEST INFORMATION

# Land Disposal Restriction Notification Form

Page 3 of 4

Date: 06 / 01 / 2007

Generator: AEROJET

Address: 7499 Pine Stake Road  
Culpeper, VA 22701

EPA ID#: VAD981112618

Manifest No

001137767FLE

Sales Order No: C41494795

Manifest Document No:

## Certification

Applies to  
Manifest  
Line Items

Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268.

1 2 3 4  
5 6 7 8  
9 10 11  
12



# Land Disposal Restriction Notification Form

Page 4 of 4

ENVIRONMENTAL SERVICES, INC.

Date: 06 / 01 / 2007

## MANIFEST INFORMATION

Generator: AEROJET

Address: 7499 Pine Stake Road  
Culpeper, VA 22701

EPA ID#: VAD981112618

Manifest No

001137767FLE

Sales Order No: C41494795

Manifest Document No:

Waste analysis data, where available, is attached

Signature:

*James Berkes*

Print Name:

JAMES BERKES

Title:

SR. ENV. ENG.

Date:

06/05/07

**Clean Harbors Colfax, LLC**  
EPA I.D. #LAD981055791  
3763 Hwy 471, Colfax, LA 71417  
(318) 627-3443, (800) 628-3443,  
(318) 627-3448 (fax)

**CERTIFICATION OF DISPOSAL**

On behalf of Clean Harbors Colfax, LLC, the waste listed on  
Manifest #001137767 FLE received from Aerojet (EPA ID#:  
VAD981112618) located Culpeper, VA on June 6, 2007 was  
disposed of in accordance with all local, state, and federal  
regulations.

Signed: David Lasyone Date: 6-12-07  
David Lasyone

AEROJET

## COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

## NORTHERN VIRGINIA REGIONAL OFFICE

13901 Crown Court, Woodbridge, Virginia 22193

(703) 583-3800 Fax (703) 583-3801

www.deq.virginia.gov

L. Preston Bryant, Jr.  
Secretary of Natural Resources

February 26, 2007

Mr. Timothy Holden  
Environmental Manager  
Aerojet Corporation  
7499 Pine Stake Rd  
Culpeper, VA 22701Re: Compliance Evaluation Inspection (CEI) of February 20, 2007  
Aerojet Corporation, Orange County, EPA ID # VAD981112618

Dear Mr. Holden,

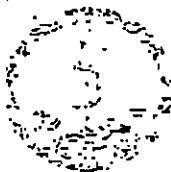
The Virginia Department of Environmental Quality (DEQ), Northern Virginia Regional Office (NVRO) staff conducted a compliance evaluation inspection at your facility on February 20, 2007. During this inspection the facility was evaluated for compliance with the Virginia Hazardous Waste Management Regulations (VHWMR), as set forth in 9 VAC 20-60-12 *et seq* and the facility's Research, Development and Demonstration (RD&D) permit for the thermal treatment of energetic hazardous waste. The VHWMR incorporates certain portions of the U.S. Environmental Protection Agency regulations (40 CFR Parts 260 through 279) by reference.

Based on review of observations, responses and documents obtained prior to and during the inspection, it appears that the facility is currently in compliance with the VHWMR and their RD&D permit. I have enclosed a survey sheet and checklist for your review.

If you have any questions, please contact me at (703) 583-3857 or [jbentley@deq.virginia.gov](mailto:jbentley@deq.virginia.gov).

Sincerely,

John R. Bentley  
Environmental Specialist II  
Hazardous Waste Sectioncc: Richard Doucette, DEQ  
File



## COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

Northern Virginia Regional Office  
13901 Crown Court  
Woodbridge, VA 22193-1453  
(703) 583-3800 fax (703) 583-3801  
www.deq.virginia.gov

June 14, 2006

Mr. Timothy Holden  
Environmental Manager  
Aerojet Corporation  
7499 Pine Stalk Rd  
Culpeper, VA 22701

RE: Compliance Evaluation Inspection (CEI) of May 11 & 24, 2006  
Aerojet Corporation, Orange County  
EPA ID# VAD981112618

Dear Mr. Holden:

The Virginia Department of Environmental Quality (DEQ), Northern Virginia Regional Office (NVRO) staff conducted a compliance evaluation inspection at your facility on May 11 & 24, 2006. During this inspection the facility was evaluated for compliance with the Virginia Hazardous Waste Management Regulations (VHWMR), as set forth in 9 VAC 20-60-12 *et seq.*, and the facility's RD&D permit for the thermal treatment of energetic hazardous waste. The VHWMR incorporates certain portions of the U.S. Environmental Protection Agency regulations (40 CFR Parts 260 through 279) by reference.

Based on review of observations, responses and documents obtained during and after the inspection, it appears that the facility is currently not in compliance with the VHWMR and their permit. I have enclosed a survey sheet and inspection checklists for your review. All alleged violations identified concern compliance with the facility's Air Monitoring Program. The Department's observations along with the applicable legal requirement and section of the Air Monitoring Program (Revised Page 35, June 5, 1990) are summarized below:

**Legal Requirements:** 40 CFR 270.30(j)(1) "Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity."

**MONITORING RATIONALE**

*"The stations are portable and will be set up the day of the treatment based on prevailing wind direction information gathered during the baseline study and the actual wind direction observed the day of the treatment operations. Weather predictions for the day of the burn will be consulted to determine if a change in wind direction is anticipated and appropriate adjustments in the monitoring locations will be made."*

Sampling locations (4) are selected based on the wind direction as observed on site at approximately 8:00 AM on the morning of treatment. It appears that the sample locations are not

adjusted prior to the burn due to changes in wind direction occurring after 8:00 AM. Current practices are to use the four selected locations and change their upwind or downwind designations based on wind direction observed during the monitoring period. This practice appears to be an attempt to force the selected locations to fit the resulting wind directions after the monitoring period.

#### **WIND CHANGE IMPACT**

*"Wind direction will be carefully monitored during the burn events. The data will be carefully assessed to note the actual direction of the plume in relation to the monitoring stations. In the unlikely event that the wind should suddenly shift in such a way that the stations due not fall within the plume footprint,.....The data from the monitoring event will still be processed the same as other data, however it will not be utilized to demonstrate the no adverse impact requirements under Subpart X."*

It appears that none of the recent Air Monitoring Reports contained an assessment of wind change impact. In all reports reviewed the monitored concentrations were submitted for statistical evaluation and used to demonstrate that no adverse impact has occurred without comment on wind change impact. In addition, monitored meteorological data reported in the Annual Monitoring Reports does not accurately portray actual site conditions (see Attachment 1). The 15<sup>th</sup> Annual Report reported the wind speed and direction for Burn 192A as 1 m/s and 203 degrees respectively. Attachment 1 shows that the reported data are not consistent with meteorological data recordings obtained from the site.

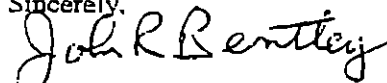
#### **SAMPLE TIMING**

*"The sampling is set up to start directly before the burn event and continue until the entire plume footprint has passed the monitoring station. This short duration of sampling is necessary so as not to dilute the sampling averages with large periods where no emissions are occurring."*

It is the facility's practice to start the monitors 20 minutes prior to initiating the burn and to turn them off 70 minutes after the burn has been initiated. This practice results in a 90 minute sampling period for all burns. Due to the close proximity of several sampling locations the center point of the plume passes the monitors in approximately 12 -14 minutes during a 2.2 m/s wind speed (see Attachment 1). This time would be cut in half during a 4.4 m/s wind speed. Since distances to sampling locations range from 800-2,750 meters and wind speeds can vary significantly between burn events a constant 90 minute sampling period does not appear to comply with sample timing objectives.

The Department is requesting that the facility respond with completion dates and actions planned to correct the alleged violations. If you should have any questions regarding this inspection report, please feel free to contact me at (703) 583-3857 or [jrbentley@deq.virginia.gov](mailto:jrbentley@deq.virginia.gov).

Sincerely,



John R. Bentley  
Environmental Specialist II

Enclosures

Cc: Richard Doucette

DEQ Central Office via email

File

## ATTACHEMENT 1

COMPARISON OF RAW AND ANNUAL REPORT DATA  
FOR BURN 192A (AUGUST 4, 2005)

Time	Wind Speed (m/s)	Wind Direction (degree N)
10:30	2.4	292
10:45	1.9	329
11:00	2.4	230
11:15	2.3	284
11:30	2.2	330
11:45	3.0	342
15 <sup>th</sup> Annual Report	1	203

Air monitoring was conducted from 10:29 through 11:49. Monitoring based on site practice of monitoring all burns 90 minutes. Monitoring starts at T-20 minutes and ends at T+70 minutes. With T set equal to the burn initiation time (10:39). Total reported burn time was 6 minutes.

Monitoring Station	Distance (meters)	Time 1 (minutes)	Time 2 (minutes)
AA (downwind)	1.210	9.2	15.2
HH (downwind)	1.075	8.1	13.2
II (downwind)	1.450	11	17
LL (upwind)	1.650	na	na

Time 1 is the approximate time the center point of the initial plume passes the monitoring station based on a wind speed of 2.2 m/s and constant wind direction towards the monitoring station. This time does not account for plume spread or wind variability. Time 2 is the approximate time the center point of the last plume passes the monitoring station based on a wind speed of 2.2 m/s and constant wind direction towards the monitoring station. This time does not account for plume spread or wind variability.

Revised Page 34  
June 5, 1990

## MONITORING PARAMETERS

The same parameters that were sampled in the background monitoring phase of the program will be sampled for in the propellant burning phase of the program. These parameters include: carbon monoxide, organics, hydrochloric acid, chromium, lead and total suspended particulates. The parameters will be sampled using the same protocols approved for the background sampling phase. As discussed on page 32, aluminum oxide will be added to the list of parameters to be monitored during the operational phase.

Parameters studies in this effort were selected based on the combustion of the propellant types to be used in the study; evaluation of combustion by-products toxicity; and the environmental studies of similar emissions.

## MONITORING RATIONALE

Sampling will be conducted during the thermal treatment event at one monitoring station upwind of the treatment area and three monitoring stations downwind of the treatment area. The stations are portable and will be set up the day of the treatment based on prevailing wind direction information gathered during the baseline study and the actual wind direction observed the day of the treatment operations. Weather predictions for the day of the burn will be consulted to determine if a change in wind direction is anticipated and appropriate adjustments in the monitoring locations will be made. The stations will all be set up identically as described in the sampling equipment/protocol section.

Three downwind stations were selected for this study in order for at least one station to be in the plume impact area during the event. The location of the stations is based on computer dispersion modeling using the EPA developed and approved Inpuff 2.2 dispersion model and current draft EPA guidelines. The inputs for the modeling of this type of activity were developed with the help of the model's author Bill Peterson. Mr. Peterson has reviewed a modeling run for this type of treatment operations and has concurred with the modeling inputs. The plume width and footprint outputs were utilized to determine the spacing of the stations. The exact location of the monitoring station will be utilized to compare modeling results with the monitoring parameters.

In the event the monitoring data during operation shows significant adverse impact on human health and safety, ARC shall promptly submit to EPA the monitoring data and its recommendations.

Revised Page 35  
June 5, 1990

## SAMPLING STATION LOCATIONS

Eight locations on the site for use as potential monitoring sites have been cleared of trees to a radius of at least 10 meters from the dripline as suggested by the Ambient Monitoring Guidelines for the Prevention of Significant Deterioration. The locations are situated between 2200 and 8070 feet as shown on the attached topographic map. Sampling locations were selected to be consistent with the approved baseline sampling protocols. The locations were selected so that all sampling would be on ARC property, since the removal of trees in the area of the sampling is required. The prevailing wind direction is out of the north or south, based on wind direction data taken at the site. The eight potential sampling sites will allow for the up-wind and down-wind stations to be set up without additional site-clearing requirements.

## #2 WIND CHANGE IMPACT

Wind direction will be carefully monitored during the burn events. The data will be carefully assessed to note the actual direction of the plume in relation to the monitoring stations. In the unlikely event that the wind should suddenly shift in such a way that the stations do not fall within the plume footprint, this fact will be noted in the field note books. The data from the monitoring will still be processed the same as other data, however it will not be utilized to demonstrate the no adverse impact requirements under Subpart X.

## #3 SAMPLE TIMING

The sample timing is a critical portion of the monitoring activity. Since the event occurs in a matter of a couple minutes, the plume will form and drift off-site in a maximum of several hours. The sampling is set up to start directly before the burn event and continue until the entire plume footprint has passed the monitoring station. This short duration of sampling is necessary so as not to dilute the sampling averages with large periods where no emissions are occurring. This short duration sampling was approved for the baseline portion of the study and will be continued in an identical manner during the burn phase.



7499 Pine Stake Road  
Culpeper, VA 22701

Tel: 540-854-2000  
Fax: 540-854-2002

February 27, 2006

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Certified Mail

Dan Gwinner  
Virginia Dept. of Environmental Quality  
OTA/Waste Division  
629 East Main Street, Fifth Floor  
Richmond, VA 23219

Re: 2005 Hazardous Waste Report for Aerojet Corporation's Orange County Facility; EPA ID  
No. VAD981112618

Dear Mr. Gwinner:

Enclosed please find the 2005 Hazardous Waste Report for Aerojet Corporation's facility in Orange County, Virginia. I have included a hard copy of the report with an original signature. An electronic file was also compiled and forwarded to VA DEQ via EasiTrak (per the instructions on the EasiTrak 2005 web site).

Should you have any questions regarding this report, please contact me at 540-854-2124 or [jim.berkes@aerojet.com](mailto:jim.berkes@aerojet.com).

Sincerely,

AEROJET CORPORATION

James C. Berkes  
Sr. Environmental Engineer

Enclosure

cc: Terry Leonard, Aerojet  
Tim Holden, Aerojet  
Bill Schwennesen, Aerojet

<b>MAIL THE COMPLETED FORM TO:</b> The Appropriate State or EPA Regional Office	United States Environmental Protection Agency <b>RCRA SUBTITLE C SITE IDENTIFICATION FORM</b>		
<b>1. Reason for Submittal</b> (see instructions on page 9)  MARK ALL BOX(ES) THAT APPLY	<b>A. Reason for Submittal:</b> <input type="checkbox"/> To provide initial notification (to obtain an EPA ID Number for hazardous waste, universal waste, or used oil activities). <input type="checkbox"/> To provide subsequent notification (to update site identification information). <input type="checkbox"/> As a component of a First RCRA Hazardous Waste Part A Permit Application. <input type="checkbox"/> As a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment# _____). <input checked="" type="checkbox"/> As a component of the Hazardous Waste Report.		
<b>2. Site EPA ID Number</b> (page 10)	<b>EPA ID Number:</b> VAD981112618		
<b>3. Site Name</b> (page 10)	<b>Name:</b> Aerojet Corporation		
<b>4. Site Location Information</b> (page 10)	<b>Street Address:</b> 7499 Pine Stake Road (Routes 621 and 602)		
	<b>City, Town, or Village:</b> Rhoadesville	<b>State:</b> VA	
	<b>County Name:</b> Orange	<b>Zip Code:</b> 22542	
<b>5. Site Land Type</b> (Page 10)	<b>Site Land Type:</b> <input checked="" type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Indian <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other		
<b>6. North American Industry Classification System (NAICS) Code(s) for the Site</b> (page 10)	<b>A.</b> 336415		<b>B.</b>
	<b>C.</b>		<b>D.</b>
<b>7. Site Mailing Address</b> (page 11)	<b>Street or P.O.</b> 7499 Pine Stake Road		
	<b>City, Town, or Village:</b> Culpeper		
	<b>State:</b> VA		
	<b>Country:</b> UNITED STATES		<b>Zip Code:</b> 22701
<b>8. Site Contact Person</b> (page 11)	<b>First Name:</b> James	<b>MI:</b> C	<b>Last Name:</b> Berkes
	<b>Phone Number:</b> 5408542124 <b>Extension:</b>		<b>Email Address:</b> jim.berkes@aerojet.com
<b>9. Operator Legal Owner of the Site</b> pages 11 and 12)	<b>B. Name of Site's Operator:</b> Aerojet Corporation		<b>Date Became Operator (mm/dd/yyyy):</b> 10/17/2003
	<b>Operator Type:</b> <input checked="" type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Indian <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other		
	<b>A. Name of Site's Legal Owner:</b> Aerojet Corporation		<b>Date Became Owner (mm/dd/yyyy):</b> 10/17/2003
	<b>Owner Type:</b> <input checked="" type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Indian <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other		

9. Legal Owner (Continued) Address	Street or P. O. Box: P.O. Box 13222	
	City, Town, or Village: Sacramento	
	State CA	
	Country: UNITED STATES	Zip: 95813-6000

**10. Type of Regulated Waste Activity**

Mark "Yes" or "No" for all activities; complete any additional boxes as instructed. (See instructions on pages 12 to 16.)

**A. Hazardous Waste Activities**

Complete all parts for 1 through 6.

- |   |   |
|---|---|
| <p>Y <input checked="" type="checkbox"/> N <input type="checkbox"/> 1. Generator of Hazardous Waste<br/>If "Yes", choose only one of the following -a, b, or c.</p> <p><input checked="" type="checkbox"/> a. LQG: Greater than 1,000 kg/mo (2,200 lbs./mo.) of non-acute hazardous waste; or</p> <p><input type="checkbox"/> b. SQG: 100 to 1,000 kg/mo (200 - 2,200 lbs./mo.) of non-acute hazardous waste; or</p> <p><input type="checkbox"/> c. CESQG: Less than 100 kg/mo (220lbs./mo.) of non-acute hazardous waste</p> <p>In addition, indicate other generator activities</p> <p>Y <input type="checkbox"/> N <input checked="" type="checkbox"/> d. United States Importer of Hazardous Waste</p> <p>Y <input type="checkbox"/> N <input checked="" type="checkbox"/> e. Mixed Waste (hazardous and radioactive) Generator</p> | <p>Y <input type="checkbox"/> N <input checked="" type="checkbox"/> 2. Transporter of Hazardous Waste</p> <p>Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Treater, Storer, or Disposer of Hazardous Waste (at your site) Note: A hazardous waste permit is required for this activity</p> <p>Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Recycler of Hazardous Waste (at your site)</p> <p>Y <input type="checkbox"/> N <input checked="" type="checkbox"/> 5. Exempt Boiler and/or Industrial Furnace<br/>If "Yes" mark each that applies.</p> <p><input type="checkbox"/> a. Small Quantity On-site Burner Exemption</p> <p><input type="checkbox"/> b. Smelting, Melting, Refining Furnace Exemption</p> <p>Y <input type="checkbox"/> N <input checked="" type="checkbox"/> 6. Underground Injection Control</p> |
|---|---|

**B. Universal Waste Activities**

- Y ☐ N ☒ 1. Large Quantity Handler of Universal Waste (accumulate 5,000 kg or more) [refer to your State regulations to determine what is regulated]. Indicate types of universal waste generated and/or accumulated at your site. If "Yes", mark all boxes that apply:

	Generated	Accumulated
a. Batteries	<input type="checkbox"/>	<input type="checkbox"/>
b. Pesticides	<input type="checkbox"/>	<input type="checkbox"/>
c. Thermostats	<input type="checkbox"/>	<input type="checkbox"/>
d. Lamps	<input type="checkbox"/>	<input type="checkbox"/>
e. Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>
f. Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>
g. Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>

- Y ☐ N ☒ 2. Destination Facility for Universal Waste

Note: A hazardous waste permit may be required for this activity.

**C. Used Oil Activities**

Mark all boxes that apply.

- Y ☐ N ☒ 1. Used Oil Transporter  
If "Yes", mark each that applies.
- ☐ a. Transporter
- ☐ b. Transfer Facility
- Y ☐ N ☒ 2. Used Oil Processor and/or Re-refiner  
If "Yes", mark each that applies.
- ☐ a. Processor
- ☐ b. Re-refiner
- Y ☐ N ☒ 3. Off-Specification Used Oil Burner
- Y ☐ N ☒ 4. Used Oil Fuel Marketer  
If "Yes", mark each that applies.
- ☐ a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner
- ☐ b. Marketer Who First Claims the Used Oil Meets the Specifications

**11. Description of Hazardous Wastes( see instructions on page 16)**

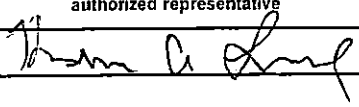
**A. Waste Codes for Federally Regulated Hazardous Wastes.** Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g., D001, D003, F007, U112). Use an additional page if more spaces are needed.

D001	D002	D003	D007	D008	D009	D011
D018	D028	D029	D035	D038	D039	D040
F001	F002	F003	F005			

**B. Waste Codes for State-Regulated (i.e., non-Federal) Hazardous Wastes.** Please list the waste codes of the State-regulated hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed for waste codes.


**12. Comments (see instructions on page 17)**

**13. Certification** I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the the possibility of fine and imprisonment for knowing violations.  
(see instructions on page 17)

Signature of owner, operator, or an authorized representative	Name and Official Title (type or print)	Date Signed (mm-dd-yyyy)
	Terrence A Leonard, Dir. Safety&Env	02/24/2006

SITE NAME: Aerojet Corporation

EPA ID NO: VAD981112618

U.S. ENVIRONMENTAL  
PROTECTION AGENCY

2005 Hazardous Waste Report

FORM  
GM

WASTE GENERATION  
AND MANAGEMENT

Instructions: Please see the detailed instructions on pages 17 to 25 of this booklet before completing this form.

Sec.1 A. Waste description (page22) Solvent-contaminated rags and trash from cleaning operations, primarily contaminated with methyl ethyl ketone and 1,1,1-trichloroethane.

B. EPA hazardous waste code F003 D035 F002 F005 D008  
(page 22) D038

C. State hazardous waste code

D. Source code G13  
(page23) Management Method code for  
Source code G25

E. Form code  
(page23)  
W002

F. Quantity generated in 2005  
600

G. UOM  
(page 23)  
1  
Density

☐ lbs/ga ☐ sg

Sec. 2 Was any of this waste managed on site ? (page22)  
☐ 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1)  
☒ 2 No (SKIP TO SEC.3)

ON-SITE PROCESS SYSTEM 1

On-site Management Quantity treated, disposed, or  
Method code recycled onsite in 2005

ON-SITE PROCESS SYSTEM 2

On-site Management Quantity treated, disposed, or  
Method code recycled on site in 2005

Sec. 3 A. Was any of this waste shipped off site in 2005 for treatment, disposal, or recycling? (pages25 and 26)  
☒ 1 Yes (CONTINUE TO BOX B) ☐ 2 No (FORM IS COMPLETE)

Site 1 B. EPA ID No. of facility to which waste  
was shipped  
NCD061263315

C. Off-site Management Method  
code Shipped to  
H141

D. Total quantity shipped in 2005  
600

Site 2 B. EPA ID No. of facility to which waste  
was shipped

C. Off-site Management Method  
code Shipped to

D. Total quantity shipped in 2005

Site 3 B. EPA ID No. of facility to which waste  
was shipped

C. Off-site Management Method  
code Shipped to

D. Total quantity shipped in 2005

Comments:

SITE NAME: Aerojet Corporation

EPA ID NO: VAD981112618

U.S. ENVIRONMENTAL  
PROTECTION AGENCY

2005 Hazardous Waste Report

FORM  
GM

WASTE GENERATION  
AND MANAGEMENT

Instructions: Please see the detailed instructions on pages 17 to 25 of this booklet before completing this form.

Sec.1 A. Waste description (page 22) Spent photoprocessing chemicals from non-destructive test operations, contains toxic levels of silver

B. EPA hazardous waste code D011  
(page 22)

C. State hazardous waste code

D. Source code G07  
(page 23) Management Method code for  
Source code G25

E. Form code  
(page 23)  
W113

F. Quantity generated in 2005  
3900

G. UOM  
(page 23)  
1  
Density  
☐ lbs/ga ☐ sg

Sec. 2 Was any of this waste managed on site ? (page 22)  
☐ 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1)  
☒ 2 No (SKIP TO SEC.3)

ON-SITE PROCESS SYSTEM 1

On-site Management Method code Quantity treated, disposed, or recycled onsite in 2005

ON-SITE PROCESS SYSTEM 2

On-site Management Method code Quantity treated, disposed, or recycled on site in 2005

Sec. 3 A. Was any of this waste shipped off site in 2005 for treatment, disposal, or recycling? (pages 25 and 26)  
☒ 1 Yes (CONTINUE TO BOX B) ☐ 2 No (FORM IS COMPLETE)

Site	B. EPA ID No. of facility to which waste was shipped	C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005
Site 1	NCD061263315	H141	2550

Site 2	B. EPA ID No. of facility to which waste was shipped	C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005
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Site 3	B. EPA ID No. of facility to which waste was shipped	C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005
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Comments:

SITE NAME: Aerojet Corporation

EPA ID NO: VAD981112618

U.S. ENVIRONMENTAL  
PROTECTION AGENCY

2005 Hazardous Waste Report

FORM  
GM

WASTE GENERATION  
AND MANAGEMENT

Instructions: Please see the detailed instructions on pages 17 to 25 of this booklet before completing this form.

Sec.1 A. Waste description (page 22) Solid residuals from the thermal treatment of solid rocket propellant and energetic wastes contaminated with trace solvents.

B. EPA hazardous waste code F002 F005  
(page 22)

C. State hazardous waste code

D. Source code G25  
(page 23) Management Method code for  
Source code G25  
H129

E. Form code  
(page 23)  
W303

F. Quantity generated in 2005  
975

G. UOM  
(page 23)  
1  
Density  
☐ lbs/ga ☐ sg

Sec. 2 Was any of this waste managed on site ? (page 22)  
☐ 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1)  
☒ 2 No (SKIP TO SEC.3)

ON-SITE PROCESS SYSTEM 1

On-site Management Quantity treated, disposed, or  
Method code recycled onsite in 2005

ON-SITE PROCESS SYSTEM 2

On-site Management Quantity treated, disposed, or  
Method code recycled on site in 2005

Sec. 3 A. Was any of this waste shipped off site in 2005 for treatment, disposal, or recycling? (pages 25 and 26)  
☒ 1 Yes (CONTINUE TO BOX B) ☐ 2 No (FORM IS COMPLETE)

Site	B. EPA ID No. of facility to which waste was shipped	C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005
Site 1	NCD061263315	H141	975

Site 2	B. EPA ID No. of facility to which waste was shipped	C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005
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Site 3	B. EPA ID No. of facility to which waste was shipped	C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005
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Comments:

Management Method: H129 - Thermal treatment by open burning.

SITE NAME: Aerojet Corporation

EPA ID NO: VAD981112618

U.S. ENVIRONMENTAL  
PROTECTION AGENCY

2005 Hazardous Waste Report

FORM  
GM

WASTE GENERATION  
AND MANAGEMENT

Instructions: Please see the detailed instructions on pages 17 to 25 of this booklet before completing this form.

Sec.1 A. Waste description (page 22) Contaminated soil, rags, and absorbant material from a spill of gasoline

B. EPA hazardous waste code D018  
(page 22)

C. State hazardous waste code

D. Source code G32  
(page 23) Management Method code for  
Source code G25

E. Form code  
(page 23)  
W002

F. Quantity generated in 2005  
100

G. UOM  
(page 23)  
1  
Density  
☐ lbs/ga ☐ sg

Sec. 2 Was any of this waste managed on site ? (page 22)  
☐ 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1)  
☒ 2 No (SKIP TO SEC.3)

ON-SITE PROCESS SYSTEM 1

On-site Management Quantity treated, disposed, or  
Method code recycled onsite in 2005

ON-SITE PROCESS SYSTEM 2

On-site Management Quantity treated, disposed, or  
Method code recycled on site in 2005

Sec. 3 A. Was any of this waste shipped off site in 2005 for treatment, disposal, or recycling? (pages 25 and 26)  
☒ 1 Yes (CONTINUE TO BOX B) ☐ 2 No (FORM IS COMPLETE)

Site	B. EPA ID No. of facility to which waste was shipped	C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005
Site 1	NCD061263315	H141	100

Site 2	B. EPA ID No. of facility to which waste was shipped	C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005
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Site 3	B. EPA ID No. of facility to which waste was shipped	C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005
--------	--	---	-----------------------------------

Comments:

SITE NAME: Aerojet Corporation

EPA ID NO: VAD981112618

U.S. ENVIRONMENTAL  
PROTECTION AGENCY

2005 Hazardous Waste Report

FORM  
GM

WASTE GENERATION  
AND MANAGEMENT

Instructions: Please see the detailed instructions on pages 17 to 25 of this booklet before completing this form.

Sec.1	A. Waste description (page 22) Contaminated rags and absorbant material from clean up of spills from mercury containing devices.			
B. EPA hazardous waste code (page 22) D009		C. State hazardous waste code		
D. Source code (page 23) Management Method code for Source code G25 G32	E. Form code (page 23) W002	F. Quantity generated in 2005 15	G. UOM (page 23) 1 Density <input type="checkbox"/> lbs/ga <input type="checkbox"/> sg	

Sec. 2	Was any of this waste managed on site ? (page 22) <input type="checkbox"/> 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) <input checked="" type="checkbox"/> 2 No (SKIP TO SEC.3)			
ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2		
On-site Management Method code	Quantity treated, disposed, or recycled onsite in 2005	On-site Management Method code	Quantity treated, disposed, or recycled on site in 2005	

Sec. 3	A. Was any of this waste shipped off site in 2005 for treatment, disposal, or recycling? (pages 25 and 26) <input checked="" type="checkbox"/> 1 Yes (CONTINUE TO BOX B) <input type="checkbox"/> 2 No (FORM IS COMPLETE)			
Site 1	B. EPA ID No. of facility to which waste was shipped NCD061263315	C. Off-site Management Method code Shipped to H141	D. Total quantity shipped in 2005 15	
Site 2	B. EPA ID No. of facility to which waste was shipped	C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005	
Site 3	B. EPA ID No. of facility to which waste was shipped	C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005	

Comments:

SITE NAME: Aerojet Corporation

EPA ID NO: VAD981112618

U.S. ENVIRONMENTAL  
PROTECTION AGENCY

2005 Hazardous Waste Report

FORM  
GM

WASTE GENERATION  
AND MANAGEMENT

Instructions: Please see the detailed instructions on pages 17 to 25 of this booklet before completing this form.

Sec.1 A. Waste description (page 22) Ignitable diesel fuel.

B. EPA hazardous waste code D001  
(page 22)

C. State hazardous waste code

D. Source code G11  
(page 23) Management Method code for  
Source code G25

E. Form code  
(page 23)  
W211

F. Quantity generated in 2005  
250

G. UOM  
(page 23)  
1  
Density  
☐ lbs/ga ☐ sg

Sec. 2 Was any of this waste managed on site ? (page 22)

- ☐ 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1)  
☒ 2 No (SKIP TO SEC.3)

ON-SITE PROCESS SYSTEM 1

On-site Management  
Method code

Quantity treated, disposed, or  
recycled onsite in 2005

ON-SITE PROCESS SYSTEM 2

On-site Management  
Method code

Quantity treated, disposed, or  
recycled on site in 2005

Sec. 3 A. Was any of this waste shipped off site in 2005 for treatment, disposal, or recycling? (pages 25 and 26)  
☒ 1 Yes (CONTINUE TO BOX B) ☐ 2 No (FORM IS COMPLETE)

Site 1 B. EPA ID No. of facility to which waste  
was shipped  
NCD061263315

C. Off-site Management Method  
code Shipped to  
H141

D. Total quantity shipped in 2005  
250

Site 2 B. EPA ID No. of facility to which waste  
was shipped

C. Off-site Management Method  
code Shipped to

D. Total quantity shipped in 2005

Site 3 B. EPA ID No. of facility to which waste  
was shipped

C. Off-site Management Method  
code Shipped to

D. Total quantity shipped in 2005

Comments:

SITE NAME: Aerojet Corporation

EPA ID NO: VAD981112618

U.S. ENVIRONMENTAL  
PROTECTION AGENCY

2005 Hazardous Waste Report

FORM  
GM

WASTE GENERATION  
AND MANAGEMENT

Instructions: Please see the detailed instructions on pages 17 to 25 of this booklet before completing this form.

Sec.1 A. Waste description (page 22) Flammable liquids, primarily methyl ethyl ketone, acetone, pyridine, and isopropyl alcohol.

B. EPA hazardous waste code F003 D038 D035 D001 F005  
(page 22)

C. State hazardous waste code

D. Source code G13  
(page 23) Management Method code for  
Source code G25

E. Form code  
(page 23)  
W203

F. Quantity generated in 2005  
450

G. UOM  
(page 23)  
1  
Density  
☐ lbs/ga ☐ sg

Sec. 2 Was any of this waste managed on site ? (page 22)  
☐ 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1)  
☒ 2 No (SKIP TO SEC.3)

ON-SITE PROCESS SYSTEM 1

On-site Management Quantity treated, disposed, or  
Method code recycled onsite in 2005

ON-SITE PROCESS SYSTEM 2

On-site Management Quantity treated, disposed, or  
Method code recycled on site in 2005

Sec. 3 A. Was any of this waste shipped off site in 2005 for treatment, disposal, or recycling? (pages 25 and 26)  
☒ 1 Yes (CONTINUE TO BOX B) ☐ 2 No (FORM IS COMPLETE)

Site 1 B. EPA ID No. of facility to which waste  
was shipped  
NCD061263315

C. Off-site Management Method  
code Shipped to  
H141

D. Total quantity shipped in 2005  
450

Site 2 B. EPA ID No. of facility to which waste  
was shipped

C. Off-site Management Method  
code Shipped to

D. Total quantity shipped in 2005

Site 3 B. EPA ID No. of facility to which waste  
was shipped

C. Off-site Management Method  
code Shipped to

D. Total quantity shipped in 2005

Comments:

SITE NAME: Aerojet Corporation

EPA ID NO: VAD981112618

U.S. ENVIRONMENTAL  
PROTECTION AGENCY

2005 Hazardous Waste Report

FORM  
GM

WASTE GENERATION  
AND MANAGEMENT

Instructions: Please see the detailed instructions on pages 17 to 25 of this booklet before completing this form.

Sec. 1	A. Waste description (page 22) Activated carbon contaminated with trace solvents.			
B. EPA hazardous waste code (page 22) D028 D029 D039 D040 F001 F002		C. State hazardous waste code		
D. Source code (page 23) Management Method code for Source code G25 G15	E. Form code (page 23) W319	F. Quantity generated in 2005 400	G. UOM (page 23) 1 Density <input type="checkbox"/> lbs/ga <input type="checkbox"/> sg	

Sec. 2	Was any of this waste managed on site ? (page 22) <input type="checkbox"/> 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) <input checked="" type="checkbox"/> 2 No (SKIP TO SEC.3)	
ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2
On-site Management Method code	Quantity treated, disposed, or recycled onsite in 2005	On-site Management Method code Quantity treated, disposed, or recycled on site in 2005

Sec. 3	A. Was any of this waste shipped off site in 2005 for treatment, disposal, or recycling? (pages 25 and 26) <input checked="" type="checkbox"/> 1 Yes (CONTINUE TO BOX B) <input type="checkbox"/> 2 No (FORM IS COMPLETE)		
Site 1	B. EPA ID No. of facility to which waste was shipped NCD061263315	C. Off-site Management Method code Shipped to H141	D. Total quantity shipped in 2005 400
Site 2	B. EPA ID No. of facility to which waste was shipped	C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005
Site 3	B. EPA ID No. of facility to which waste was shipped	C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005

Comments:

Form Code: W319 - Activated carbon contaminated with trace solvents.

SITE NAME: Aerojet Corporation

EPA ID NO: VAD981112618

U.S. ENVIRONMENTAL  
PROTECTION AGENCY

2005 Hazardous Waste Report

FORM  
GM

WASTE GENERATION  
AND MANAGEMENT

Instructions: Please see the detailed instructions on pages 17 to 25 of this booklet before completing this form.

Sec.1	A. Waste description (page 22) Corrosive sodium nitrite/sodium hydroxide solution.			
B. EPA hazardous waste code (page 22) D002		C. State hazardous waste code		
D. Source code (page 23) Management Method code for Source code G25 G11	E. Form code (page 23) W110	F. Quantity generated in 2005 275	G. UOM (page 23) 1 Density <input type="checkbox"/> lbs/ga <input type="checkbox"/> sg	

Sec. 2	Was any of this waste managed on site ? (page 22) <input type="checkbox"/> 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) <input checked="" type="checkbox"/> 2 No (SKIP TO SEC.3)		
ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2	
On-site Management Method code	Quantity treated, disposed, or recycled onsite in 2005	On-site Management Method code	Quantity treated, disposed, or recycled on site in 2005

Sec. 3	A. Was any of this waste shipped off site in 2005 for treatment, disposal, or recycling? (pages 25 and 26) <input checked="" type="checkbox"/> 1 Yes (CONTINUE TO BOX B) <input type="checkbox"/> 2 No (FORM IS COMPLETE)		
Site 1	B. EPA ID No. of facility to which waste was shipped NCD061263315	C. Off-site Management Method code Shipped to H141	D. Total quantity shipped in 2005 275
Site 2	B. EPA ID No. of facility to which waste was shipped	C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005
Site 3	B. EPA ID No. of facility to which waste was shipped	C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005

Comments:

SITE NAME: Aerojet Corporation

EPA ID NO: VAD981112618

U.S. ENVIRONMENTAL  
PROTECTION AGENCY

2005 Hazardous Waste Report

FORM  
GM

WASTE GENERATION  
AND MANAGEMENT

Instructions: Please see the detailed instructions on pages 17 to 25 of this booklet before completing this form.

Sec.1	A. Waste description (page 22) Solid rocket propellant containing chromium and lead.			
B. EPA hazardous waste code (page 22) D003 D007 D008		C. State hazardous waste code		
D. Source code (page 23) Management Method code for Source code G25 G07	E. Form code (page 23) W405	F. Quantity generated in 2005 6628	G. UOM (page 23) 1 Density <input type="checkbox"/> lbs/ga <input type="checkbox"/> sg	

Sec. 2	Was any of this waste managed on site ? (page 22) <input checked="" type="checkbox"/> 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) <input checked="" type="checkbox"/> 2 No (SKIP TO SEC.3)	
ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2
On-site Management Method code Quantity treated, disposed, or recycled onsite in 2005		On-site Management Method code Quantity treated, disposed, or recycled on site in 2005

Sec. 3	A. Was any of this waste shipped off site in 2005 for treatment, disposal, or recycling? (pages 25 and 26) <input checked="" type="checkbox"/> 1 Yes (CONTINUE TO BOX B) <input type="checkbox"/> 2 No (FORM IS COMPLETE)		
Site 1	B. EPA ID No. of facility to which waste was shipped LAD981055791	C. Off-site Management Method code Shipped to H129	D. Total quantity shipped in 2005 6628
Site 2	B. EPA ID No. of facility to which waste was shipped	C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005
Site 3	B. EPA ID No. of facility to which waste was shipped	C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005

Comments:

Off Site Management Method: H129 - Thermal treatment by open burning.

SITE NAME: Aerojet Corporation

EPA ID NO: VAD981112618

U.S. ENVIRONMENTAL  
PROTECTION AGENCY

2005 Hazardous Waste Report

FORM  
GM

WASTE GENERATION  
AND MANAGEMENT

Instructions: Please see the detailed instructions on pages 17 to 25 of this booklet before completing this form.

Sec.1	A. Waste description (page 22) Rags and trash contaminated with solid rocket propellant containing chromium and lead.			
B. EPA hazardous waste code (page 22) D003 D007 D008		C. State hazardous waste code		
D. Source code (page 23) Management Method code for Source code G25	G13	E. Form code (page 23) W002	F. Quantity generated in 2005 800	G. UOM (page 23) 1 Density <input type="checkbox"/> lbs/ga <input type="checkbox"/> sg

Sec. 2	Was any of this waste managed on site ? (page 22) <input type="checkbox"/> 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) <input checked="" type="checkbox"/> 2 No (SKIP TO SEC.3)		
ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2	
On-site Management Method code		Quantity treated, disposed, or recycled onsite in 2005	

Sec. 3	A. Was any of this waste shipped off site in 2005 for treatment, disposal, or recycling? (pages 25 and 26) <input checked="" type="checkbox"/> 1 Yes (CONTINUE TO BOX B) <input type="checkbox"/> 2 No (FORM IS COMPLETE)		
Site 1	B. EPA ID No. of facility to which waste was shipped LAD981055791	C. Off-site Management Method code Shipped to H129	D. Total quantity shipped in 2005 800
Site 2	B. EPA ID No. of facility to which waste was shipped	C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005
Site 3	B. EPA ID No. of facility to which waste was shipped	C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005

Comments:

Off Site Management Method: H129 - Thermal treatment by open burning.

SITE NAME: Aerojet Corporation

EPA ID NO: VAD981112618

U.S. ENVIRONMENTAL  
PROTECTION AGENCY

2005 Hazardous Waste Report

FORM  
GM

WASTE GENERATION  
AND MANAGEMENT

Instructions: Please see the detailed instructions on pages 17 to 25 of this booklet before completing this form.

Sec.1	A. Waste description (page 22) Miscellaneous reactive and toxic lab pack material.			
B. EPA hazardous waste code (page 22) D003 D011		C. State hazardous waste code		
D. Source code (page 23) Management Method code for Source code G25 G11	E. Form code (page 23) W001	F. Quantity generated in 2005 250	G. UOM (page 23) 1 Density <input type="checkbox"/> lbs/ga <input type="checkbox"/> sg	

Sec. 2	Was any of this waste managed on site ? (page 22) <input type="checkbox"/> 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) <input checked="" type="checkbox"/> 2 No (SKIP TO SEC.3)	
ON-SITE PROCESS SYSTEM 1		ON-SITE PROCESS SYSTEM 2
On-site Management Method code	Quantity treated, disposed, or recycled onsite in 2005	On-site Management Method code Quantity treated, disposed, or recycled on site in 2005

Sec. 3	A. Was any of this waste shipped off site in 2005 for treatment, disposal, or recycling? (pages 25 and 26) <input checked="" type="checkbox"/> 1 Yes (CONTINUE TO BOX B) <input type="checkbox"/> 2 No (FORM IS COMPLETE)		
Site 1	B. EPA ID No. of facility to which waste was shipped TND000772186	C. Off-site Management Method code Shipped to H040	D. Total quantity shipped in 2005 250
Site 2	B. EPA ID No. of facility to which waste was shipped	C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005
Site 3	B. EPA ID No. of facility to which waste was shipped	C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005

Comments:

SITE NAME: Aerojet Corporation

EPA ID NO: VAD981112618

U.S. ENVIRONMENTAL  
PROTECTION AGENCY

2005 Hazardous Waste Report

FORM  
GM

WASTE GENERATION  
AND MANAGEMENT

Instructions: Please see the detailed instructions on pages 17 to 25 of this booklet before completing this form.

Sec. 1	A. Waste description (page 22) Waste energetic material, primarily solid rocket propellant and explosives, including contaminated rags and trash.		
	B. EPA hazardous waste code (page 22) D003 D035 D038 F002 F005		C. State hazardous waste code
D. Source code (page 23) Management Method code for Source code G25	E. Form code (page 23) W405	F. Quantity generated in 2005 11044	G. UOM (page 23) 1 Density <input type="checkbox"/> lbs/ga <input type="checkbox"/> sg

Sec. 2	Was any of this waste managed on site ? (page 22) <input checked="" type="checkbox"/> 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) <input type="checkbox"/> 2 No (SKIP TO SEC.3)	
	<b>ON-SITE PROCESS SYSTEM 1</b> On-site Management Method code H129 Quantity treated, disposed, or recycled onsite in 2005 13831	<b>ON-SITE PROCESS SYSTEM 2</b> On-site Management Method code Quantity treated, disposed, or recycled on site in 2005

Sec. 3	A. Was any of this waste shipped off site in 2005 for treatment, disposal, or recycling? (pages 25 and 26) <input type="checkbox"/> 1 Yes (CONTINUE TO BOX B) <input checked="" type="checkbox"/> 2 No (FORM IS COMPLETE)		
	Site 1	B. EPA ID No. of facility to which waste was shipped C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005
	Site 2	B. EPA ID No. of facility to which waste was shipped C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005
	Site 3	B. EPA ID No. of facility to which waste was shipped C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005

Comments:

On Site Management Method: H129 - Thermal treatment by open burning.

SITE NAME: Aerojet Corporation

EPA ID NO: VAD981112618

U.S. ENVIRONMENTAL  
PROTECTION AGENCY

2005 Hazardous Waste Report

FORM  
GM

WASTE GENERATION  
AND MANAGEMENT

Instructions: Please see the detailed instructions on pages 17 to 25 of this booklet before completing this form.

<b>Sec. 1</b>	A. Waste description (page 22) Unused paint, ignitable, containing lead and methyl ethyl ketone.			
B. EPA hazardous waste code (page 22) D001 D008 D035		C. State hazardous waste code		
D. Source code (page 23) G11 Management Method code for Source code G25	E. Form code (page 23) W209	F. Quantity generated in 2005 350	G. UOM (page 23) 1 Density <input type="checkbox"/> lbs/ga <input type="checkbox"/> sg	

<b>Sec. 2</b>	Was any of this waste managed on site ? (page 22) <input type="checkbox"/> 1 Yes (CONTINUE TO ON-SITE PROCESS SYSTEM 1) <input checked="" type="checkbox"/> 2 No (SKIP TO SEC. 3)		
<b>ON-SITE PROCESS SYSTEM 1</b>		<b>ON-SITE PROCESS SYSTEM 2</b>	
On-site Management Method code	Quantity treated, disposed, or recycled onsite in 2005	On-site Management Method code	Quantity treated, disposed, or recycled on site in 2005

<b>Sec. 3</b>	A. Was any of this waste shipped off site in 2005 for treatment, disposal, or recycling? (pages 25 and 26) <input checked="" type="checkbox"/> 1 Yes (CONTINUE TO BOX B) <input type="checkbox"/> 2 No (FORM IS COMPLETE)		
Site 1	B. EPA ID No. of facility to which waste was shipped NCD061263315	C. Off-site Management Method code Shipped to H141	D. Total quantity shipped in 2005 350
Site 2	B. EPA ID No. of facility to which waste was shipped	C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005
Site 3	B. EPA ID No. of facility to which waste was shipped	C. Off-site Management Method code Shipped to	D. Total quantity shipped in 2005

Comments: